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ABSTRACT

The tenth annual Recruiting Trends Survey conducted by Placement Services at Michigan State is presented, based on responses from a cross-section of business, government, and educational institutions. Job outlooks in the following fields and categories of 1980-81 graduates are offered: engineering, business, agriculture, science, liberal arts, education, women, minorities and handicapped. Other areas examined include: average starting salaries; campus recruiting activities; layoffs of college graduates; level of education required for job performance; withdrawal of job offers; average cost per new college hire; interviewee preparedness; summer jobs for 1981; recruiting problems; advice to freshmen and sophomores; and job search strategies. Results suggest that (1) employment opportunities for college graduates will be good for the class of 1981 compared to the overall job market; (2) of the nearly one million bachelors' degree graduates, about 90% will have jobs by graduation time; (3) there is a healthy market for engineers, business majors, agriculture, women graduates, and science graduates; (4) and liberal arts and education graduates will find the market in their areas a closed one. The main body of the report contains statistical data from the report. (LC)

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## RECRUITING TRENDS 1980-81

**A Study of 562 Businesses, Industries,  
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## ACKNOWLEDGEMENTS

The employers who so kindly completed our questionnaire are gratefully acknowledged. Several business, industry, government and education employers commented that this survey is one of the main sources used when planning their recruitment efforts. Many college and high school counselors, placement staff members and students, college and high school, use this information in their career exploration and decision making.

Linda Kohl, our graduate research assistant, is especially recognized for her extensive efforts during the development, analysis and final production of this report. Her computer programming abilities permitted us to efficiently analyze volumes of data and more effectively report them.

We wish to thank also several Assistant Directors of Placement Services who offered suggestions for improvement of our survey instrument: Edwin Fitzpatrick, Lois Meerdink, Tony Rogalski, Jim Bowling, Rebecca Jost, and Vernicka Biles.

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## Summary of

### RECRUITING TRENDS 1980-81

#### A Study of 562 Businesses, Industries, Government Agencies, and Educational Institutions Employing New College Graduates

This report is a summary of the tenth annual Recruiting Trends survey conducted by Placement Services at Michigan State University for 1980-81. A cross section of 562 businesses, industries, government agencies, and educational institutions were surveyed for this study. The results include information about trends in hiring new college graduates, expected starting salaries, campus recruiting activities, and other related topics of interest to personnel directors, placement staff members, educators, career counselors, and students.

### JOB OUTLOOK FOR GRADUATES OF 1980-81

In the overall picture, employment opportunities for college graduates will be good for the class of 1981 compared to the overall job market. During recessions, blue collar workers tend to be more heavily hit than salaried workers. Of the slightly more than one million bachelors degree graduates that are leaving the college campuses this year, about 90% will have jobs by graduation time. Most of the remaining graduates looking for jobs will find employment within three or four months after graduation. Some of these individuals will be underemployed and not at the levels of expectation. But the pattern in the past has been that these people slowly blend into the professional job market and eventually find their niche.

Awareness of potential employment problems has made graduates work harder at the business of finding jobs. As a result, competition for jobs among college graduates will become more intense. Also, students are becoming more sophisticated in their job search strategies. Today's student spends more time studying career paths and the job market and those who are not willing to work at seeking a job find themselves less competitive in the job market.

As a result of the recession, employers are more cautious this year in their approach to hiring college graduates, since employment quotas for recruiting visits were established for the class of 1980 before the recession began in the spring of 1980. The class of 1981 will feel the impact of the recession a little more than the class of 1980. This is evidenced by the modest (compared to recent years) starting salary increases employers plan to offer. Employers are planning to visit as many campuses as last year with the hope that economic conditions will be healthy. They will make offers, however, on a very calculated basis so they will not be trapped by making more offers than they can handle. This year's recruiters feel they must adjust to a very sensitive economic climate and their manpower planning must be tuned accordingly.

**ENGINEERING GRADUATES:** A bright outlook again this year is expected for engineering graduates. Employers indicate an increase of 1-2% over last year and some employers did not fill all of their jobs last year because of the limited supply of engineers nationally. Opportunities in computer science, electrical engineering, mechanical engineering, chemical engineering and petroleum engineering will exceed the supply of graduates from universities across the country.

**BUSINESS GRADUATES:** There is a healthy job market for graduates majoring in business, and employers expect it to be about the same as last year. Accounting majors will continue to be in high demand along with marketing, transportation, and management majors.

**AGRICULTURE:** Employers indicate there is "near-balance" between supply and demand of Agriculture majors.

**SCIENCE:** This represents a mixed bag in terms of supply and demand at the bachelor's level. Overall the supply equals demand but in most science majors an advanced degree is a great help in improving employment potential.

**LIBERAL ARTS GRADUATES:** Liberal arts graduates at the bachelor's degree level will continue to experience heavy competition since the supply of graduates in these disciplines is abundant. Graduates in this area tend to be less sophisticated in their approach to the job market, but those who prepare properly will find opportunities. Rapid strides have been made in recent years to enhance employment potentials of these graduates through coop programs, internships, business electives, and career planning workshops. Liberal arts graduates with advanced degrees in specialized areas such as business or law is find jobs.

**EDUCATION GRADUATES:** The supply of education graduates continues to exceed the demand, although there are selective areas where shortages of education majors still exist. These include special education, math, science, industrial arts, and agricultural education. Those education majors without locational restrictions should find opportunities in their fields of study too.

**WOMEN GRADUATES:** Employers continue to be optimistic in their forecasting of opportunities for women entering non-traditional fields. Industries such as accounting, aerospace, chemicals and drugs, construction and building trades, electrical industries, electronics, government, hospital and health services, merchandising, petroleum, public utilities, and research and consulting firms all respond very affirmatively to hiring women graduates.

**MINORITY GRADUATES:** Employment opportunities for minorities continue to be excellent as employers reported an increase of about 3-4% in their hiring quotas for the coming year. Because of the limited supply of minority graduates, there is sharp competition for minority graduates in such technical industries as aerospace, chemicals and drugs, electrical equipment, electronics, and petroleum.

**HANDICAPPER GRADUATES:** There is undoubtedly more awareness on the part of employers about the employment plight of handicappers, and more and more employers are responding to this. While the job market for handicappers can stand substantial improvement, employers indicate an interest in hiring handicapped graduates.

#### AVERAGE STARTING SALARIES

Average starting salaries will increase 5-6% over last year for all degree levels. Average salaries for bachelor's degree graduates across the nation are most elusive and difficult to measure. An educated guess, however, would indicate that the average college graduate coming out of universities in 1981 will have an annual salary exceeding \$15,000 per year. The course of study the student takes while attending a college or university makes a great difference, however, in the starting salary. Employers in our survey indicate that the range will be from \$12,970 for social science majors to a high of \$20,650 average starting salary for chemical engineers. Education majors will receive \$12,672 on the average, but this is for a ten month year. Each year the range becomes wider and wider between the lowest average starting salaries and the highest with technical disciplines averaging a 1-2% increase each year over the non-technical. Over the past two decades there has developed a \$7,000 differential. With the continued short supply of technical graduates, this trend will undoubtedly continue.

#### CAMPUS RECRUITING ACTIVITIES

According to the surveyed employers, most will be visiting 1-2% more campuses this year, while 29.1% expect to increase their number of campus visits by 3-4% or more, and 21.3% expect to make fewer visits. During their campus visits, though, prospective employers will be more selective about those individuals they finally decide to hire, since their overall hiring quotas are about the same as last year.

## LAYOFFS OF COLLEGE GRADUATES

Of the organizations reporting, 16.3% have laid off college trained personnel because of the recession. In fact, several organizations indicated that they felt their organizations were recession proof. Many employers indicated that they reduced personnel, but that they were able to take care of their reductions in force by normal attrition. Those organizations that laid off college trained personnel included auto and mechanical equipment, communications, education, and metal production industries. Very few college graduates have been laid off in accounting, banking and finance, hospital and health services, hotel/restaurant/institutional management organizations, and the military. When laying off salaried personnel, employers use such criteria as merit, seniority, and importance of job as primary factors. Less relevant factors according to the employers include EEO regulations, hierarchical level of position held, geographical location of employment, and employee's willingness to relocate.

## LEVEL OF EDUCATION REQUIRED FOR JOB PERFORMANCE

Most employers required bachelor's degrees for entry level positions in their organizations. In fact, almost 50% of all professional positions in the surveyed organizations required a bachelor's degree. Only about 10% of the available positions required a doctoral degree and about 20% required a master's degree. When preparing for the job market in business, industry, government and education, the bachelor's degree is the primary entry level of education required, and only specialist positions require master's or Ph.D. degrees. A few positions are available for individuals with associate's degrees or less.

## WITHDRAWAL OF JOB OFFERS

Because of the professional ethics involved, most employers will not withdraw an offer once it has been accepted. Their comments included "we honor our offers," "we only withdraw in extremely rare situations," and "it would almost be a national disaster before we would withdraw an offer." To avoid such a circumstance, most employers will only extend offers for the numbers of positions they have available. However, of the surveyed employers, several (203) stated they had no organizational policy concerning this matter. Many make withdrawal notifications to the candidate by letter (167) and by a phone call (162) when an offer is withdrawn. Several notify the placement office by letter (92) or phone call (51) when an offer is withdrawn. Some employers absorb costs incurred by the candidate (73) while others guarantee employment for a specific length of time if work is satisfactory (52).

## AVERAGE COST PEP NEW COLLEGE HIRE

According to the surveyed employers, the average cost per new hire is \$1,342. In business the cost is \$1,379, in government, \$1,162, and in education \$755. The average costs per hire are difficult to generalize for a variety of reasons. The costs shown here do not include training costs.

## INTERVIEWEE PREPAREDNESS

Employers believe that new college graduates are generally well prepared for on-campus interviews and that the level of preparedness varies, depending on the interest and effectiveness of the placement office. Further, they believe that students with meaningful summer employment, part-time jobs and internships are better prepared for employment than others without these experiences. Employers are especially critical of memorized or canned answers. They strongly recommend that colleges and universities provide more classes on interviewing, resume preparation and career decision making. Several employers recommended that placement offices make students more aware of their career options and current job market conditions.

## IMPORTANT FACTORS FOR GETTING HIRED

Employers indicate they are looking for professional employees with a value system that revolves around honesty, integrity, respect of the work ethic, good attitude and many other "old fashioned" characteristics. Specifically, when recruiting new college graduates for employment, employers indicated they were seeking individuals with honesty and integrity, common sense, an ability to get things done, initiative, and reliability. These factors were followed closely in importance by dependability, enthusiasm, interpersonal skills, motivation to achieve, judgment skills, oral communication skills, and attitude toward the work ethic. Their list continued with the factors of mental alertness, problem solving ability, intelligence, responsiveness, and well-developed work habits.

The candidate's major grade point average was ranked 39th on a list of 69 factors and overall grade point average was ranked 45th. Prior successful career related work experience ranked 35th. Obviously, the various majors and area of employment have a great bearing on the ranking of these factors.

## SUMMER JOBS FOR 1981

The number of summer jobs for 1981 is expected to remain about the same as last year. Of the surveyed employers, who offer summer employment, 21.9% expect an increase in summer jobs, and 10.6% expect a decrease.

## UTILIZATION OF PERSONNEL FORECASTING

A majority of the surveyed employers (59.6%) reported that they use personnel forecasting in establishing hiring quotas and salaries. Businesses, industries and governmental organizations use forecasting more often than educational institutions. Only 21.4% of the educational institutions use it. Many organizations (73) report that they have not yet developed an adequate system for personnel planning. Some (36) say it serves no useful purpose. With current understaffing in personnel offices, employers are especially conscious of cost/benefit considerations. Employers who use personnel forecasting are projecting for a period of one year at the maximum (43.2%). Only a few employers forecast beyond this period of time. Of those who do, 10.3% forecast for two years, 11.2% for three years, and 24.4% for five years. Only 2.4% forecast for 6 or more years. Employers in business and government generally forecast for greater periods than employers in education. As primary sources for forecasting data, the surveyed employers listed in order of importance their own organization's studies, College Placement Council reports, Recruiting Trends Report, and Endicott's Report.

## NEGOTIATING-STARTING SALARIES

Several of the surveyed employers have fixed starting salaries (21.3%), and only a few employers (18.6%) negotiate starting salaries with new college hires. More business employers than government or education employers negotiate starting salaries. Education and government employers usually have fixed starting salaries for various degree levels, academic majors and job assignments. Especially important when negotiating starting salaries for new college hires are prior work experiences. Other considerations are grade point averages, class ranking in the university, cooperative education experiences, and previous part-time work experiences. Also relevant are job market conditions and geographical location of employment.

## PROCEDURES FOR OFFERS OF EMPLOYMENT

In extending offers of employment to new college hires, employers almost always use written letters (81.4%). Seldom used are written contracts, except in educational institutions where 82.0% of these employers almost always use written contracts as confirmation of an employment offer.

## SIGNIFICANT RECRUITING PROBLEMS

The most important problem when recruiting new college graduates was the difficulty of finding applicants, especially in the technical areas. This dilemma was followed closely in importance by the problem of finding qualified minorities and identifying outstanding individuals with competitive spirit.

### USE OF DETACHABLE PHOTOGRAPHS

Employers generally reported that individuals should not voluntarily use detachable photographs on their resumes. In fact, the response was 81.6% "no" photographs, 8.8% recommending photographs under some conditions, and 9.6% recommending photographs. However, employers' comments suggested that photographs may help recruiters better remember candidates, help minorities and women identify themselves, and distinguish resumes from others in the pile.

### CONSIDERING SEVERAL JOB OFFERS

According to the surveyed employers, when evaluating several job offers, the most important factors college graduates should consider are the nature of the job, promotion potential, personality of the employing organization, and the visit to the organization. Least important were the opportunity for further academic work, geographical mobility, and employee benefits. Starting salaries ranked seventh on a list of 13 factors.

### SOURCES FOR RECRUITING NEW COLLEGE GRADUATES

Employers reported the most important sources for recruiting college graduates were competent college placement services, on-campus interviewing, and referrals from key college faculty and staff. Other important sources included referrals from current employees of the organization, cooperative education programs, internships, and summer employment. Having very little importance for recruiting new college graduates were unsolicited referrals from employment agencies and job listings with employment agencies.

### REASONS FOR LEAVING AN ORGANIZATION

As the primary reason for attrition of college graduates within their first two years of employment cited by employers was better job offers followed by the candidate's inability to adapt to the employer's situation and the job transfer of a spouse/partner. Following closely were the employee's, inability to meet the employer's work standards, lack of motivation, pending marriage, and pregnancy. Less often cited were the desired transfer within an organization not being likely, the employee being terminated/fired, the employee not being qualified for the job, the employee being misinformed on job requirements, and the education of the employee not being suited to the job requirements.

### INCREASING THE EFFECTIVENESS OF COLLEGE RECRUITMENT

As a primary method for increasing the effectiveness of college recruitment, employers stressed the need for improved communication between their offices and colleges/universities. They were generally pleased with the services provided by university and college placement offices, but they believed the placement services could be improved. For example, when arranging interview schedules they encouraged proper screening of applicants to be sure that only appropriate individuals were placed on employer schedules. They also recommended programs to make students more aware of the business world and working conditions outside the campus. Further suggestions included: greater availability of pre-screening lists, better contact between college faculty and employers, more opportunities for employers to be guest speakers for classes and career fairs, better student interview preparation and resume development, and more thorough study of employer's literature by students before their interviews. Employers also recommended that candidates better identify their career goals before beginning the interview process.

## ADVICE TO FRESHMEN AND SOPHOMORES

Employers recommended that undergraduate students investigate possible employment opportunities in several occupations and talk with professionals about their jobs. Students are encouraged to choose a career that is challenging and enjoyable to them. According to employers, a solid technical undergraduate background would make them more saleable on the job market when they graduate. Strongly recommended were careers in the high demand occupations previously listed. Holding summer and part-time jobs that will help identify their career goals was also suggested. In addition working harder than others to become better than most in their fields was highlighted. The need for better career decision making also was emphasized. Employers recommended that undergraduate students visit their placement offices early and discuss the many career alternatives available to them. Narrowing their career choices as quickly as possible was suggested so students can more adequately prepare for their chosen occupation.

## JOB SEARCH STRATEGIES FOR JUNIORS AND SENIORS

Generally employers suggested students start their career planning early, have as many career related job experiences as possible during college and just be themselves. Common sense, honesty and hard work are highly respected attributes. Researching career opportunities and interviewing with several organizations should help graduates identify potential career paths. Using placement services, having campus interviews, and writing letters of application to non-visiting companies were also mentioned as excellent job hunting strategies. A positive mental attitude was another desired factor. To be successful in the job search, individuals should be personable, keep their options open, be confident and be able to sell themselves. Graduates should know themselves, know the system, be patient and be selective. By establishing realistic career goals and knowing their strengths and weaknesses, individuals should be able to match job offers with their strongest abilities. Graduates should be as specific as possible about their skills and goals and yet interview with as broad a range of employers as possible to expand their career alternatives.

Which category best describes your organization, and how many SALARIED employees are on the payroll of your organization? Absolute frequencies are listed for each answer with adjusted frequencies (%) shown on the second line in each block.

Number of Salaried Employees

Employer Categories	COUNTR Y ROW PCT	Number of Salaried Employees					ROW TOTAL
		1-99	100-999	1000- 9999	10,000 OR MORE	NO ANSWER	
ACCOUNTING	45.8	20.8	25.0	8.3	0.3	1.7	29
AEROSPACE	0	2	57.9	31.6	0.3	0.4	3.5
AGRICULTURE	5	7	17.5	11.8	1.5	1.4	3.1
AUTO MECHANICS-EQUIPMENT	4	7	5	27.5	2.4	2.4	22
BANKING, FINANCE, INSURANCE	5	13	21	11.4	1.4	3.3	33
CHEMICAL, DRUGS	3.6	10.7	53.6	32.1	1.4	5.2	5.2
COMMUNICATION	33.3	33.3	33.3	0	3	3	65
CONSTRUCTION BUILDING	2	4	6	37	1.4	1.4	14
EDUCATION	1.8	6.4	22.8	7.6	3	10.5	10.5
ELECTRICAL EQUIPMENT	2	8	9	20	3	4.4	4.4
ELECTRONICS	7.1	28.6	35.7	28.6	3	5.2	5.2
FOOD-BEVERAGE	12.9	54.8	25.8	6.2	0.4	3.1	50.7
GLASS, PAPER, PACKAGING	1	5	5	21.4	2.4	2.4	2.4
GOVERNMENT ADMINISTRATION	2	2	11	4	2.4	1.4	13
HOSPITAL-HEALTH	3	4	5	3	2.4	1.4	13
HOTELS, RESTAURANT RECREATION	22.2	22.2	63.3	22.2	3	1.7	1.7
MERCHANDISING	1	11	18	4	2.4	2.4	6.3
METALS	10.7	35.7	55.7	17.9	3.4	5.2	5.2
MILITARY	12.5	0	50.0	37.5	3	1.5	1.5
PETROLEUM	0	21.1	36.8	42.1	3	1.4	1.4
PRINTING PUBLICATIONS	0	3	4	3	3	1.4	1.4
PUBLIC UTILITIES	0	10	17	5	2.4	3.2	5.3
RESEARCH CONSULTANT	13.3	35.7	45.7	3.3	1.4	3.0	5.5
SERVICE ORGANIZATION	50.0	0	0	50.0	3	2	2
TIRE-RUBBER	0	0	0	100.0	3	1.2	1.2
VOLUNTEER	50.0	25.0	25.0	0	1.4	3	7
DIVERSIFIED CONGLOMERATE	0	0	5	44.4	3	1.7	1.7
COLUMN TOTAL	58	177	213	95	13	595	1000.0
ROW TOTAL	10.7	32.6	39.2	17.5	3	59.5	100.0

NUMBER OF MISSING OBSERVATIONS = 19

Approximately what percentage of the professional positions in your organization require the following levels of education for successful job performance? Absolute frequencies are listed for each answer with adjusted frequencies (%) shown on the second line in each block. LESS THAN HIGH SCHOOL DIPLOMA REQUIRED.

Employer Categories	COUNT	Percentage of Professional Positions Requiring Less than High School Diploma										ROW TOTAL
		1	2	3	4	5	6	7	8	9	10	
Business-Industry	1	138	68	11	1	3	1	2	15	179M	0	295
	1	63.7	25.1	3.7	2.4	1.3	.5	.7	5.1	0	85.8	
Government	2	13	5	0	0	3	0	0	0	11M	0	18
	2	72.2	27.8	0	0	3	0	0	0	0	0	5.2
Education	3	15	12	2	2	3	0	0	0	28M	0	31
	3	44.4	38.7	6.5	6.5	0	0	0	0	0	0	9.0
COLUMN TOTAL		216	85	13	2	3	1	2	15	218M	0	344
		62.9	24.7	3.8	2.4	.9	.3	.6	4.4	0	100.0	

NUMBER OF MISSING OBSERVATIONS = 218

OBSERVATIONS: Only 37.2% of the employers reported that any professional positions in their organizations required less than a high school diploma. Even then, for the majority of these employers only about 1-10% of their positions required this level of education.

Approximately what percentage of the professional positions in your organization require the following levels of education for successful job performance? Absolute frequencies are listed for each answer with adjusted frequencies (%) shown on the second line in each block. HIGH SCHOOL DIPLOMA REQUIRED.

Employer Categories	COUNT	Percentage of Professional Positions Requiring High School Diploma										ROW TOTAL	
		1	2	3	4	5	6	7	8	9	10		
Business-Industry	1	45	109	47	32	19	23	16	13	8	42	116M	
	1	12.5	30.4	13.1	9.9	5.3	5.4	4.5	3.6	2.2	11.7	0	358
Government	2	4	4	2	2	2	1	1	2	0	0	2	20
	2	20.0	20.0	10.0	10.0	10.0	5.0	7.0	10.0	0	0	0	4.8
Education	3	7	11	11	2	2	2	0	0	0	0	0	35
	3	20.0	31.4	31.4	5.7	5.7	5.7	0	0	0	0	0	8.5
COLUMN TOTAL		56	124	60	36	23	23	17	15	8	44	149M	113
		13.6	30.0	14.5	8.7	5.5	6.3	4.1	3.6	1.0	10.7	0	100.0

NUMBER OF MISSING OBSERVATIONS = 149

OBSERVATIONS: Almost 86.4% of the employers reported that some of their professional positions required a high school diploma as the minimum educational level for successful job performance. On the average, approximately 1-20% of their positions required this level of education.

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Approximately what percentage of the professional positions in your organization require the following levels of education for successful job performance? Absolute frequencies are listed for each answer with adjusted frequencies (%) shown on the second line in each block. **ASSOCIATES DEGREE REQUIRED**

Percentage of Professional Positions Requiring Associates Degree

Employer Categories	COUNT	ROW PCT	INQ1E	1-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	VC ANSWE	ROW TOTAL	
Business-Industry	1140	150	81	35	7	1	3	1	2	1	2	1	1	8	135M	339
	11.8	44.2		23.9	10.6	2.1	9	6	6	3	3	2.4	2.7	0	89.4	
Government	235	25	4	0	2	1	0	1	0	1	0	0	0	0	12M	17
	2.5	29.4		23.5	0	11.3	5.9	0	0	5.9	0	0	0	0	4.5	
Education	111	11	0	1	3	0	0	0	0	0	0	0	0	0	36M	23
	1.1	11.8		0	4.3	3	0	0	0	0	0	0	0	0	6.1	
COLUMN TOTAL	35	166	85	37	29	14	24	11	15	18	13	8	9	183M	379	
	14.5	43.8	22.4	9.8	2.9	1.1	6.5	4.8	3.3	2.1	2.4	0	0	0	100.0	

NUMBER OF MISSING OBSERVATIONS = 185

**OBSERVATIONS:** Of the employers reporting, 85.5% have professional positions in their organizations requiring the minimum of an associate's degree for successful job performance. On the average, approximately 1-10% of their positions require this level of education for successful job performance.

Approximately what percentage of the professional positions in your organization require the following levels of education for successful job performance? Absolute frequencies are listed for each answer with adjusted frequencies (%) shown on the second line in each block. **BACHELORS DEGREE REQUIRED**

Percentage of Professional Positions Requiring Bachelors Degree

Employer Categories	COUNT	ROW PCT	INQ1E	1-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	VC ANSWE	ROW TOTAL
Business-Industry	1140	23	32	35	37	59	43	59	49	51	39	534	421		
	11.8	5.2		7.3	12.3	8.3	12.3	13.2	11.9	11.6	9.7	9.3	0	84.2	
Government	235	1	1	2	2	9	3	0	11.3	5.3	1	8	34	25	
	3.8	3.8		3.8	7.7	7.7	15.4	11.5	0	11.5	5.3	10.8	0	5.2	
Education	111	0	1	0	3	10	11	6	7	5	11	6	6M	53	
	1.0	1.9		0	0	5.7	18.9	20.8	11.3	15.2	5.7	20.5	0	10.6	
COLUMN TOTAL	35	24	34	55	42	59	57	58	59	43	43	58	624	500	
	14.5	6.8	9.8	11.0	8.4	13.5	11.4	11.2	11.3	11.6	0	0	0	100.0	

NUMBER OF MISSING OBSERVATIONS = 62

**OBSERVATIONS:** Almost all surveyed employers (99.6%) responding to this item reported that some of their professional positions required a bachelors degree for successful job performance. On average, almost 50% of all professional positions in these organizations required a bachelors

Approximately what percentage of the professional positions in your organization require the following levels of education for successful job performance? Absolute frequencies are listed for each answer with adjusted frequencies (%) shown on the second line in each block. **MASTERS DEGREE REQUIRED.**

Percentage of Professional Positions Requiring Master Degree

Employer Categories	COUNT	ROW PCT	1-NONE	1-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	VC AVSWE	ROW TOTAL	
Business-Industry	1	1	1	2	1	3	1	3	1	5	1	7	1	9	1	0
	1	54	176	82	26	11	5	5	2	1	2	3	0	1	108M	366
	2	14.8	48.1	22.4	7.1	3.0	1.5	1.5	.5	.5	.5	.3	0	1.1	0	83.8
Government	2	3	14	5	0	1	1	0	1	1	1	0	1	0	3M	26
	1	11.5	53.8	19.2	6	3.3	0	0	3.8	1	3.8	0	3.8	0	0	5.9
Education	3	1	22	10	1	5	3	3	0	2	0	0	0	2.1	14M	45
	1	2.2	48.9	22.2	2.2	11.1	6.7	0	4.4	0	0	0	2.2	0	1	10.3
COLUMN TOTAL	1	58	212	97	27	17	9	7	1	5	3	2	1	5	125M	437
TOTAL	133	48.5	22.2	6.2	3.9	2.1	.7	1.1	.7	.7	.2	1.1	0	0	100.0	

NUMBER OF MISSING OBSERVATIONS = 125.

**OBSERVATIONS:** The percentage of professional positions requiring a master's degree was much lower than those requiring a bachelor's. Of the surveyed employers, 86.7% had professional positions requiring master's degrees, and approximately one half of the employers had only 10% or less requiring this level of education.

Approximately what percentage of the professional positions in your organization require the following levels of education for successful job performance? Absolute frequencies are listed for each answer with adjusted frequencies (%) shown on the second line in each block. **DOCTORATES DEGREE REQUIRED.**

Percentage of Professional Positions Requiring Doctoral Degree

Employer Categories	COUNT	ROW PCT	1-NONE	1-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100	VC AVSWE	ROW TOTAL	
Business-Industry	1	1	1	2	1	3	1	4	1	3	1	10	1	1	0	0
USTR	1	127	156	23	7.3	1.3	4	2	2	1	1	1	1	158M	315	
	1	40.2	49.4	7.3	1.3	.5	.5	.5	.5	.5	.5	.3	.3	0	86.8	
Government	2	12	37	4.1	0	2	2	3	0	0	0	0	0	7M	22	
	1	54.5	31.8	4.5	0	9.1	0	0	0	0	0	0	0	0	5.0	
Education	3	7	18	0	0	0	3	0	0	0	1	3.8	1	33M	25	
	1	26.9	59.2	0	0	0	3	0	0	0	0	3.8	0	0	7.1	
COLUMN TOTAL	1	146	181	24	4	9	2	1	2	1	2	1	2	198M	364	
TOTAL	401	49.7	6.6	1.1	1.1	.3	.3	.3	.3	.3	.5	.5	0	0	100.0	

NUMBER OF MISSING OBSERVATIONS = 199.

**OBSERVATIONS:** The percentage of employers requiring doctoral degrees in their professional positions was 59.9% of those who responded. Then in most of these organizations only about 1-10% of their positions required doctoral degrees.

In summarizing the job outlook for new college graduates with your organization in 1980-81, please indicate your ratings. Answers are listed in mean score order. Absolute frequencies are listed for each answer with adjusted frequencies (%) shown in parentheses. (%)

Types of Graduates	Mean Score	Job Outlook Rating					Row Total	
		Excellent	Good	Fair	Poor	Very Poor		
Minorities	1.996	179 (37.0)	184 (38.0)	79 (16.3)	28 (5.4)	14 (2.9)	0 (0.0)	464
Women	2.022	157 (31.4)	211 (44.8)	74 (15.4)	24 (5.1)	14 (2.8)	0 (0.0)	493
Handicappers	2.443	91 (20.4)	161 (36.2)	118 (26.5)	59 (12.4)	20 (4.5)	0 (0.0)	442
All College Graduates	2.490	61 (15.3)	152 (38.2)	130 (32.7)	39 (9.8)	16 (4.0)	3 (0.8)	398
Masters/MBA Graduates	2.852	49 (12.7)	92 (23.8)	143 (37.0)	71 (18.4)	31 (8.0)	0 (0.0)	386
Electrical Engineering	2.097	128 (43.0)	75 (25.2)	49 (16.4)	30 (10.1)	16 (5.4)	0 (0.0)	298
Computer Science	2.097	127 (37.5)	105 (31.0)	66 (19.5)	29 (8.6)	12 (3.5)	0 (0.0)	334
Mechanical Engineering	2.122	126 (40.4)	89 (28.5)	46 (14.7)	35 (11.2)	16 (5.1)	0 (0.0)	312
Chemical Engineering	2.382	82 (33.3)	61 (24.8)	50 (20.3)	33 (13.4)	20 (8.1)	0 (0.0)	246
Accounting	2.528	60 (14.2)	171 (40.3)	125 (29.5)	45 (10.6)	23 (5.4)	0 (0.0)	424
Marketing/Sales	2.714	46 (13.7)	115 (34.2)	93 (27.7)	53 (15.8)	29 (8.6)	0 (0.0)	335
Business	2.801	16 (10.3)	51 (32.7)	49 (31.4)	23 (17.9)	12 (7.7)	0 (0.0)	156
Gen. Business Administration	2.823	29 (7.7)	128 (33.9)	131 (34.7)	61 (16.1)	29 (7.7)	0 (0.0)	378
Financial Administration	2.896	32 (8.8)	111 (30.5)	117 (32.1)	71 (19.5)	33 (9.1)	0 (0.0)	364
Metallurgy and Materials Science	2.905	31 (15.4)	46 (22.9)	56 (27.9)	47 (23.4)	21 (10.4)	0 (0.6)	201
Chemistry	2.922	26 (9.7)	83 (31.0)	77 (28.7)	50 (18.7)	32 (11.8)	0 (0.0)	258
Mathematics	2.933	33 (11.0)	76 (25.4)	100 (35.4)	58 (19.4)	32 (10.7)	0 (0.0)	292
Civil Engineering	2.963	39 (17.8)	45 (20.5)	51 (23.5)	53 (24.2)	31 (14.2)	0 (0.0)	215
Petroleum Engineering	3.055	29 (22.8)	16 (12.6)	21 (16.5)	41 (32.3)	20 (15.7)	0 (0.0)	127
Physics	3.156	23 (9.0)	53 (20.7)	79 (30.9)	63 (24.5)	38 (14.8)	0 (0.0)	256
Personnel	3.349	10 (3.0)	57 (16.9)	127 (37.6)	93 (27.5)	51 (15.1)	0 (0.0)	338
Natural Science	3.370	4 (2.9)	29 (21.0)	44 (31.9)	34 (24.6)	27 (19.6)	0 (0.0)	138
Agriculture and Natural Resources	3.388	13 (8.1)	28 (17.5)	33 (20.6)	55 (35.0)	30 (18.8)	0 (0.0)	160
Hotel/Restaurant/Institution Management	3.474	12 (9.0)	26 (19.5)	17 (12.8)	43 (32.3)	35 (26.3)	0 (0.0)	133
Communication	3.511	6 (2.2)	45 (16.8)	83 (31.0)	74 (27.6)	60 (22.4)	0 (0.2)	254
Human Ecology	3.622	5 (5.0)	14 (11.8)	32 (26.9)	34 (28.6)	33 (27.7)	0 (0.6)	117
Liberal Arts	3.651	10 (3.7)	43 (16.0)	65 (24.2)	64 (23.8)	87 (32.3)	0 (0.0)	269
Social Science	3.704	7 (3.0)	33 (14.2)	55 (23.6)	65 (27.9)	73 (31.3)	0 (0.0)	233
Education	3.735	7 (3.4)	19 (9.3)	52 (25.5)	69 (33.8)	57 (27.9)	0 (0.0)	204

**OBSERVATIONS:** Employment opportunities were especially good for minorities and women. This was followed by good to fair employment opportunities for handicappers and new college graduates. Masters and MBA's were estimated to be in fair demand.

The academic majors in highest demand were electrical engineering, computer science, mechanical engineering, chemical engineering, accounting, and marketing/sales. These were followed closely by business, general business administration, financial administration, metallurgy/materials science, chemistry, mathematics, civil engineering and petroleum engineering. Areas of lesser demand were education, social sciences, liberal arts, human ecology and communication graduates.

The job market for college graduates varied greatly depending on the employer type. Listed as excellent were employment opportunities with accounting firms, retailing and merchandising organizations and petroleum industries. Those organizations with generally poor job markets were auto and mechanical equipment, and education. The other types of organizations generally responded with fair to good job markets for college graduates.

In summarizing the job outlook for new college graduates with your organization in 1980-81, please indicate your ratings. Absolute frequencies are listed for each answer with adjusted frequencies (%) shown in the second line of each block.

Job Outlook Rating for All College Graduates

Employer Categories	COUNT	Row Pct	Excellent	Good	Fair	Poor	Very Poor	None Hired	No Answer	Row Total
			1	2	3	4	5	6	7	
ACCOUNTING	6	31.6	7	5	5	0	3	1	0	10
AEROSPACE	3	17.6	6	7	7	0	1	0	2	17
AGRICULTURE	3	20.0	4	2	2	0	3	0	3	15
AUTO MECHANICS / EQUIPMENT	2	11.1	1	5	5	8	3	2	4	18
BANKING, FINANCE INSURANCE	2	5.7	15	15	3	3	3	0	10	35
CHEMICAL, DRUGS	3	12.5	14	5	2	3	3	0	5	24
COMMUNICATION	0	0	2	0	0	3	3	0	1	3
CONSTRUCTION BUILDING	1	10.0	2	5	2	2	3	3	0	10
EDUCATION	1	2.9	1	11	5	12	12	24	0	35
ELECTRICAL EQUIPMENT	2	13.3	8	3	1	3	1	5.7	9	36
ELECTRONICS	7	30.4	9	5	3	0	4.3	4.3	0	23
FOOD-BEVERAGE	4	17.4	10	7	0	1	1	4.3	8	23
GLASS, PAPER, PACKAGING	1	9.1	6	2	1	1	1	0	5	11
GOVERNMENT ADMINISTRATION	1	6.3	5	7	2	0	3	1	5	16
HOSPITAL-HEALTH	2	16.7	33.3	41.7	9.3	3	0	0	3	12
HOTELS, RESTAURANT RECREATION	0	0	44.4	44.4	11.1	3	3	0	0	2.2
MERCHANDISING	10	35.7	12	4	1	3	1	1	8	23
METALS	5.3	35.5	25.3	57.9	10.5	2	3	0	9	45
MILITARY	0	0	2	3	0	0	3	0	3	5
PETROLEUM	5	38.5	4	30.8	30.8	0	3	3	6	13
PRINTING PUBLICATIONS	0	0	50.0	37.5	12.5	1	3	0	2	8
PUBLIC UTILITIES	2	8.7	11	7	2	3	1	1	11	23
RESEARCH CONSULTANT	1	4.8	10	8	3	3	2	1	19	21
SERVICE ORGANIZATION	0	0	50.0	0	0	3	4.3	50.0	0	5.1
TIRE-RUBBER	0	0	0	1	0	3	0	0	0	1
VOLUNTEER	1	33.3	33.3	0	33.3	1	3	0	2	3
DIVERSIFIED-CONGLOMERATE	3	37.5	4	1	0	3	0	0	1	8
COLUMN TOTAL	61	14.7	152	36.6	130	9.4	15	3.9	17	415
										100.0

Observation: See page 6.

In summarizing the job outlook for new college graduates with your organization in 1980-81, please indicate your ratings. Absolute frequencies are listed for each answer with adjusted frequencies (%) shown in the second line of each block.

**Job Outlook Rating for Women Graduates.**

Employer Categories	COUNT	ROW PCT	Job Outlook Rating						Row Total
			Excellent	Good	Fair	Poor	Very Poor	None Hired	
ACCOUNTING	11	8	2	2	0	0	0	2	23
	47.8	34.8		8.7				8.7	44.5
AEROSPACE	7	9	3	0	0	0	0	0	16
	36.8	47.4	15.8						36.7
AGRICULTURE	6	4	3	4	2	0	0	0	18
	33.3	22.2	16.7	22.2		5.5			36.5
AUTOMECHANICS	2	5	4	5	5	3	12.1	4.2	15
EQUIPMENT	11.1	27.8	22.2	27.9					30.5
BANKING, FINANCE	7	25	9	2	3	0	0	24	43
INSURANCE	16.3	58.1	20.9	4.7					80.4
CHEMICAL, DRUGS	10	15	7.1	3.6	1	0	0	1.3	28
	35.7	53.6							56.5
COMMUNICATION	0	2	0	0	0	3	0	1.4	2
	0	100.0							0.4
CONSTRUCTION	4	3	4	1	7.7	7.7	0	2.2	13
BUILDING	30.8	23.1	30.8	7.7					20.0
EDUCATION	4	11	7	5	3	14.5	1.8	0	41
	9.8	25.8	17.1	12.2	19.3				8.1
ELECTRICAL	9	12	0	0	1	0	2.2	0	22
EQUIPMENT	40.9	54.5	0	0	4.3	0	0	0	46.3
ELECTRONICS	12	9	3	0	1	3.9	2.2	0	26
	46.2	34.6	11.5	0	3.3				5.1
FOOD-BEVERAGE	4	16	8	0	1	3	0	2.2	27
	13.8	55.2	27.5	0	3.3				5.7
GLASS, PAPER,	4	8	1	1	3	0	2.2	0	14
PACKAGING	28.6	57.1	7.1	7.1	0	0	0	0	28
GOVERNMENT	7	9	2	1	3	1	1.4	0	20
ADMINISTRATION	35.0	45.0	10.0	5.0	3	5.0	0	0	36.9
HOSPITAL-HEALTH	7	6	1	0	3	0	1.4	0	14
	56.0	42.9	7.1	0	3				28
HOTELS, RESTAURANT	0	7	2	0	3	0	0	0	9
RECREATION	0	77.8	22.2	0	3	0	0	0	1.8
MERCHANDISING	12	17	4	0	3	0	3	0	33
	36.4	51.5	12.1	0	3				60.6
METALS	4	11	8	2	3	0	3	0	25
	16.0	44.0	32.0	8.6	3	0	0	0	46.9
MILITARY	3	1	2	0	3	0	0	2.1	6
	50.0	16.7	33.3	0	3	0	0	0	1.2
PETROLEUM	11	5	2	0	3	1	0	0	19
	57.9	25.3	10.5	0	3	5.3	0	0	36.7
PRINTING	1	8	1	0	3	0	0	0	10
PUBLICATIONS	10.0	50.0	1.0	0	3	0	0	0	20.0
PUBLIC UTILITIES	12	16	2	1	3	1	1.4	0	33
	36.4	48.5	6.1	3.0	3.3	3.0	0	0	66.5
RESEARCH	12	10	4	2	3	3.1	2.2	0	29
CONSULTANT	41.4	34.5	13.8	6.9	3	3.4	0	0	56.7
SERVICE ORGANIZATION	1	0	0	0	0	50.0	0	0	2
	50.0	0	0	0	0	50.0	0	0	0.4
TIRE-RUBBER	0	1	0	0	0	0	0	0	1
	0	100.0							0.2
VOLUNTEER	1	2	1	0	3	0	1.4	0	4
	25.0	50.0	25.0	0	3	0	0	0	0.8
DIVERSIFIED	6	1	1	0	3	0	1.4	0	8
CONGLOMERATE	75.0	12.5	12.5	0	3	0	0	0	1.2
COLUMN TOTAL	157	221	76	25	14	15	53.6	509	
	30.8	43.4	14.9	4.9	2.3	3.1	0	100.0	

NUMBER OF MISSING OBSERVATIONS = 53

**OBSERVATIONS:** For women graduates, employment opportunities were reported generally excellent in accounting, aerospace, agribusiness, chemicals and drugs, construction and building trades, electrical engineering, electronics, government, hospital and health services, merchandising, military, petroleum, public utilities, research and consulting. In education the job market for women was reported as poor as it was auto and mechanical equipment.

In summarizing the job outlook for new college graduates with your organization in 1980-81, please indicate your ratings. Absolute frequencies are listed for each answer with adjusted frequencies (%) shown in the second line of each block.

**Job Outlook Rating for all Minority Graduates**

Employer Categories	COUNT ROW PCT	Job Outlook Rating						No Answer 0	Row Total
		Excellent 1	Good 2	Fair 3	Poor 4	Very Poor 5	None Hired 5		
ACCOUNTING	11.1 47.8	7 30.4	2 8.7	0 0	1 4.5	2 8.7	2 0	2 <sup>a</sup> 0	23 45.5
AEROSPACE	8 42.1	8 42.1	3 15.8	0 0	3 5.5	0 0	0 0	0 <sup>a</sup> 0	19 35.8
AGRIBUSINESS	5 27.8	1 5.6	8 44.4	3 16.7	1 5.5	0 0	0 0	0 <sup>a</sup> 0	18 35.5
AUTO MECHANICS EQUIPMENT	2 11.1	5 27.8	4 22.2	5 27.8	3 3	2 11.1	2 0	4 <sup>a</sup> 0	18 35.6
BANKING, FINANCE INSURANCE	12 27.9	20 45.5	7 16.3	3 7.0	3 3	1 2.3	1 0	2 <sup>a</sup> 0	43 85.5
CHEMICAL, DRUGS	14 50.0	11 39.3	1 3.6	1 3.6	1 3.5	0 3	0 0	1 <sup>a</sup> 0	28 55.5
COMMUNICATION	1 50.0	1 50.0	0 0	0 0	3 3	0 0	1 <sup>a</sup> 0	0 <sup>a</sup> 0	2 4
CONSTRUCTION BUILDING	4 30.8	2 15.4	5 38.5	2 15.4	3 3	3 0	2 <sup>a</sup> 0	2 <sup>a</sup> 0	13 25.6
EDUCATION	7 17.9	10 25.6	3 7.7	5 12.8	7 17.9	7 17.9	7 0	20 <sup>a</sup> 0	39 77
ELECTRICAL EQUIPMENT	10 45.5	9 40.9	1 4.5	1 4.5	1 3	4.5 4.5	2 <sup>a</sup> 0	2 <sup>a</sup> 0	22 45.3
ELECTRONICS	12 48.0	8 32.0	3 12.5	0 0	1 4.0	1 4.0	1 <sup>a</sup> 0	3 <sup>a</sup> 0	25 45.0
FOOD-BEVERAGE	4 13.8	15 55.2	7 24.1	0 0	1 3.4	1 3.4	2 <sup>a</sup> 0	2 <sup>a</sup> 0	28 55.7
GLASS, PAPER, PACKAGING	6 42.9	5 35.7	2 14.3	1 7.1	3 3	0 0	2 <sup>a</sup> 0	2 <sup>a</sup> 0	14 25.6
GOVERNMENT ADMINISTRATION	9 45.0	6 30.0	3 15.0	1 5.0	3 3	1 5.0	1 <sup>a</sup> 0	1 <sup>a</sup> 0	20 45.0
HOSPITAL-HEALTH	5 38.5	7 53.8	1 7.7	0 0	3 3	3 0	2 <sup>a</sup> 0	2 <sup>a</sup> 0	13 25.5
HOTELS, RESTAURANT RECREATION	0 0	6 65.7	3 33.3	0 0	3 3	3 0	0 <sup>a</sup> 0	0 <sup>a</sup> 0	0 15.2
MERCHANDISING	13 39.4	15 45.5	4 12.1	0 0	3 3	1 3.0	1 3.0	3 <sup>a</sup> 0	33 55.5
METALS	4 15.0	11 44.0	8 32.0	2 9.0	0 0	0 0	0 0	3 <sup>a</sup> 0	25 45.0
MILITARY	4 57.1	1 14.3	2 29.6	0 0	3 3	0 0	0 <sup>a</sup> 0	1 <sup>a</sup> 0	7 1.4
PETROLEUM	12 63.2	4 21.1	1 5.3	1 5.3	3 3	1 5.3	0 <sup>a</sup> 0	0 <sup>a</sup> 0	19 35.8
PRINTING PUBLICATIONS	2 20.0	7 70.0	1 10.0	0 0	3 3	0 0	0 <sup>a</sup> 0	0 <sup>a</sup> 0	10 25.0
PUBLIC UTILITIES	12 35.4	14 42.4	4 12.1	1 3.0	3 3.0	1 3.0	1 <sup>a</sup> 0	1 <sup>a</sup> 0	33 65.5
RESEARCH CONSULTANT	12 41.4	8 27.6	4 13.8	2 5.9	3 3.4	2 6.9	2 <sup>a</sup> 0	2 <sup>a</sup> 0	22 55.7
SERVICE ORGANIZATION	1 50.0	0 0	0 0	0 0	3 3	0.1 50.0	0 <sup>a</sup> 0	0 <sup>a</sup> 0	2 44
TIRE-RUBBER	0 0	1 100.0	0 0	0 0	3 3	0 0	0 <sup>a</sup> 0	0 <sup>a</sup> 0	1 2
VOLUNTEER	3 75.0	1 25.0	0 0	0 0	3 3	0 0	1 <sup>a</sup> 0	1 <sup>a</sup> 0	4 8
DIVERSIFIED- CONGLOMERATE	6 75.0	0 0	2 25.0	0 0	3 3	0 0	1 <sup>a</sup> 0	1 <sup>a</sup> 0	8 15.5
COLUMN TOTAL	179 35.4	184 35.4	79 15.6	28 5.5	13 2.3	22 4.3	56 <sup>a</sup> 0	59 <sup>a</sup> 0	100.2

NUMBER OF MISSING OBSERVATIONS = 55

**OBSERVATIONS:** Job opportunities for minority graduates were generally rated as excellent in accounting, aerospace, chemicals and drugs, communications, electrical equipment, electronics, glass, paper and packaging, government administration, military, and petroleum industries. Poor job markets for minorities were reported in auto and mechanical equipment and education.

In summarizing the job outlook for new college graduates with your organization in 1980-81, please indicate your ratings. Absolute frequencies are listed for each answer with adjusted frequencies (%) shown in the second line of each block.

**Job Outlook Rating for all Handicapper Graduates**

Employer Categories	COUNT	ROW PCT	Job Outlook Rating for all Handicapper Graduates							Row Total
			Excellent	Good	Fair	Poor	Very Poor	None Hired	No Answer	
			1	2	3	4	5	6	7	
ACCOUNTING	6	28.6	29.6	6	2	1	2	4	44	21
AEROSPACE	5	26.3	42.1	8	6	0	3	0	04	19
AGRIBUSINESS	2	11.1	5.6	1	6	9	2	0	0	18
AUTO MECHANICS EQUIPMENT	1	5.6	22.2	4	5	6	3	2	44	30.7
BANKING, FINANCE INSURANCE	6	14.3	45.2	15	8	3	0	5	34	42
CHEMICAL, DRUGS	5	18.5	51.9	14	6	1	1	0	24	50.5
COMMUNICATION	0	0	100.0	2	0	0	0	0	14	2
CONSTRUCTION BUILDING	1	9.1	18.2	2	3	27.3	3	9.1	44	20.2
EDUCATION	0	0	27.5	11	6	9	3	8	19	40
ELECTRICAL EQUIPMENT	7	31.8	36.4	8	4	4.5	4.5	4.5	0	40.5
ELECTRONICS	8	30.8	39.5	10	7.7	11.5	3	1	24	50.3
FOOD-BEVERAGE	1	3.7	37.0	10	6	11.1	14.3	11.1	44	27
GLASS, PAPER, PACKAGING	3	23.1	39.5	5	4	7.7	1	3	0	13
GOVERNMENT ADMINISTRATION	6	33.3	22.2	4	3	16.7	11.1	3	34	30.7
HOSPITAL-HEALTH	2	15.4	53.8	7	3	23.1	0	3	14	13
HOTELS, RESTAURANT RECREATION	0	0	12.5	1	5	62.5	12.5	3	11	1.6
MERCHANDISING	5	15.2	30.3	10	11	33.3	12.1	0	34	33
METALS	2	9.1	31.8	7	9	40.9	9.1	3	9.1	4.5
MILITARY	0	0	14.3	1	2	28.6	0	14.3	42.9	1.4
PETROLEUM	10	55.6	11.1	2	4	22.2	5.6	3	5.5	18
PRINTING PUBLICATIONS	1	10.0	30.0	3	5	50.0	10.0	3	0	20
PUBLIC UTILITIES	9	27.3	33.3	11	8	24.2	9.1	3	2	35
RESEARCH CONSULTANT	6	20.7	27.5	8	8	27.6	13.8	3.4	6.9	6.0
SERVICE ORGANIZATION	0	0	50.0	1	0	0	0	50.0	0	2
TIRE-RUBBER	0	0	100.0	1	0	0	0	0	0	0
VOLUNTEER	0	0	100.0	4	0	0	0	0	1M	4
DIVERSIFIED- CONGLOMERATE	5	62.5	12.5	1	2	25.0	0	3	0	8
COLUMN TOTAL	91	18.5	161	32.7	118	24.0	55	4.1	47	704
										492
										100.0

NUMBER OF MISSING OBSERVATIONS = 70

**OBSERVATIONS:** Employment opportunities for handicappers generally were rated as lower than those for either women or minorities. However, the job market for handicappers was slightly higher than the overall job market for all college graduates. Petroleum industries reported a generally excellent job market for handicappers. Poor job markets emerged in agribusiness, auto and mechanical equipment, construction and building trades, education, and the military.

In summarizing the job outlook for new college graduates with your organization in 1980-81, please indicate your ratings. Absolute frequencies are listed for each answer with adjusted frequencies (%) shown in the second line of each block.

**Job Outlook Rating for all MBA Graduates**

Employer Categories	COUNT	ROW PCT	Job Outlook Rating							Row Total
			Excellent	Good	Fair	Poor	Very Poor	None Hired	No Answer	
ACCOUNTING	30.4	25.1	7	6	4	0	4.3	21.7	2	23
AEROSPACE	0	15.8	0	3	9	7	3	0	0	16
AGRICULTURE	5.6	11.1	1	2	5	5	11.1	11.1	0	18
AUTO MECHANICS EQUIPMENT	0	4	0	22.2	33.3	22.2	3	22.2	4	19
BANKING, FINANCE INSURANCE	20.0	13.3	9	6	17	13.3	6.7	8.9	0.5	43
CHEMICAL, DRUGS	12.0	40.0	3	10	28.0	12.0	3	8.0	4	52
COMMUNICATION	50.0	50.0	1	1	0	0	3	0	1	2
CONSTRUCTION BUILDING	7.7	7.7	1	1	2	6	2	7.7	2	13
EDUCATION	5.7	0	2	0	8.5	11.4	14.3	60.0	24	72
ELECTRICAL EQUIPMENT	10.0	30.0	2	5	35.0	15.0	3	10.0	0	41
ELECTRONICS	12.0	24.0	3	6	24.0	18.2	9.3	24.0	3	52
FOOD-BEVERAGE	7.7	19.2	2	5	34.6	15.4	3.3	19.2	5	54
GLASS, PAPER, PACKAGING	7.1	14.3	1	2	21.4	3	3	21.4	2	14
GOVERNMENT ADMINISTRATION	5.6	15.7	1	3	33.3	11.1	11.1	22.2	3	37
HOSPITAL-HEALTH	16.7	33.3	2	4	16.7	8.3	8.3	15.7	0	12
HOTELS, RESTAURANT RECREATION	12.5	1	0	0	0	25.0	37.5	25.0	0	1.7
MERCHANDISING	3.1	21.9	1	7	34.4	9.4	5.3	25.9	0	56
METALS	0	13.0	0	3	39.1	9	3	4.3	30.3	25
MILITARY	16.7	33.3	1	2	16.7	1	0	3	2	1.2
PETROLEUM	21.1	10.5	4	2	42.1	10.5	3	15.3	0	19
PRINTING PUBLICATIONS	0	40.0	0	4	50.0	10.0	3	3	0	21
PUBLIC UTILITIES	5.2	32.3	1	10	32.3	12.9	3.2	16.1	3	31
RESEARCH CONSULTANT	14.8	11.1	4	3	22.2	11.1	11.1	29.6	4	57
SERVICE ORGANIZATION	0	0	0	0	50.0	0	3	50.0	0	2
TIRE-RUBBER	0	0	0	0	100.0	0	3	0	0	1
VOLUNTEER	20.0	0	1	0	40.0	40.0	3	0	0	5
DIVERSIFIED-CONGLOMERATE	14.3	28.6	1	2	42.9	0	3	14.3	2	7
COLUMN TOTAL		10.1	19.0	29.5	14.3	14.7	6.3	20.2	78.0	484
									0	100.0

NUMBER OF MISSING OBSERVATIONS = 78

**OBSERVATIONS:** Employment opportunities for Masters/MBA graduates were reported generally good to excellent especially in accounting, chemicals and drugs, communications, electronics, hospitals and health services, the military, and petroleum industries.

Does your organization use manpower forecasting when establishing quotas for new college hires?  
 Absolute frequencies are listed for each answer with adjusted frequencies (%) shown in the second line of each block.

Employer Categories	Count	Row Pct	Yes			No Answer	Row Total
			1	2	0		
ACCOUNTING	16	8		14	2	24	44.4
	66.7	33.3		0	0		
AEROSPACE	17	2		0	15	19	3.5
	89.5	10.5		0	0		
AGRIBUSINESS	11	7		0	4	18	3.3
	61.1	38.9		0	0		
AUTO-MECH EQUIP.	15	6		14	1	21	3.9
	71.4	29.6		0	0		
BANKING, FINAN. IN	23	19		34	0	42	7.7
	54.8	45.2		0	0		
CHEMICALS, DRUGS	17	11		14	2	28	5.2
	60.7	39.3		0	0		
COMMUNICATION	3	2		0	1	3	.6
	33.3	66.7		0	0		
CONSTRUCTION-BLD	8	7		0	1	15	2.8
	53.3	45.7		0	0		
EDUCATION	12	44		34	0	56	10.3
	21.4	78.6		0	0		
ELECTRICAL EQUIP	13	8		34	1	31	5.9
	61.9	38.1		0	0		
ELECTRONICS	22	4		24	0	25	4.8
	64.6	15.4		0	0		
FOOD-BEVERAGE	10	19		24	0	29	5.4
	34.5	65.5		0	0		
GLASS, PAPER, PACK	11	5		0	4	15	3.0
	68.8	31.3		0	0		
GOVT. ADMIN	11	10		0	1	21	3.9
	52.4	47.6		0	0		
HOSPITAL-HEALTH	4	11		0	4	15	2.8
	26.7	73.3		0	0		
HOTELS, REST., REC	5	4		0	1	9	1.7
	55.6	44.4		0	0		
MERCHANDISING-RE	29	6		14	1	35	6.3
	82.9	17.1		0	0		
METALS	17	11		34	0	28	5.2
	60.7	39.3		0	0		
MILITARY	6	1		14	0	7	1.3
	85.7	14.3		0	0		
PETROLEUM	14	3		24	0	31	5.7
	82.4	17.6		0	0		
PRINTING-PUBL	7	3		0	4	10	1.9
	70.0	30.0		0	0		
PUBLIC UTILITIES	25	9		0	16	36	6.3
	73.5	26.5		0	0		
RESEARCH-CONSULT	21	10		0	11	31	5.7
	67.7	32.3		0	0		
SERVICE ORGANS.	50.0	50.0		0	0	2	.4
	50.0	50.0		0	0		
TIRE-RUBBER	0	1		0	0	1	.2
	0.0	100.0		0	0		
VOLUNTEER	40.0	3		0	0	5	.9
	40.0	60.0		0	0		
OTHER	5	4		0	1	7	.7
	55.6	44.4		0	0		
COLUMN TOTAL	323	219	20M	0	542		
TOTAL	59.6	40.4	0	100.0			

NUMBER OF MISSING OBSERVATIONS = 20

OBSERVATIONS: Most organizations (59.6%) reported that they use manpower forecasting. Government organizations and business and industries used it more often than educational institutions.

If your organization does not use manpower forecasting, why not? Answers and responses are shown. Employers marked all that applied.

Answers	Number of Responses
System not yet developed	73
Organization too small to benefit	63
No acceptable system found	36
Serves no useful purpose	35
Understaffed	20
Cost/benefit considerations	10
Takes too much time	7

**OTHER FACTORS:** Many organizations indicated that long range planning was rather difficult because of current economic conditions, recent lay-offs and rapidly changing hiring conditions in their organizations. Many organizations were currently under very austere budgets, and, therefore, they had minimum personnel staff for performing maximum support to their organizations. Some organizations indicated that upper management offered minimum support for manpower forecasting.

**OBSERVATIONS:** Most organizations reported that they had not yet developed an adequate system for manpower planning. This answer was followed closely by organizations reporting that they were too small to benefit from such forecasting. Other organizations reported that manpower forecasting served no useful purpose or they found no acceptable system available for their use. A few employers cited understaffing and cost/benefit considerations as their reasons for not using manpower forecasting.

If your organization uses manpower forecasting, for what period does your organization forecast? Absolute frequencies are listed for each answer with adjusted frequencies (%) shown in the second line of each block.

Employer Categories	COUNT	ROW PCT	Forecasting Period							ROW TOTAL
			1 YEAR	2 YEARS	3 YEARS	5 YEARS	6 OR MORE YEARS	NO ANSWER	0	
BUSINESS-INDUSTRY	132	9.5	132	32	31	72	7	169	0	303
GOVERNMENT	3145	21	16	2	2	3	1	104	0	5967
EDUCATION	553	4	9	1	1	3	0	453	0	167
COLUMN TOTAL	222	16.3	177	39	34	93	9	222	0	340
			45.3	45.3	10.3	11.2	24.3	24.3		100.0

NUMBER OF MISSING OBSERVATIONS = 223

**OBSERVATIONS:** Employers generally indicated that their manpower forecasting period was one year at the maximum. Only a few employers forecast beyond this period of time. Of those who did, 10.3% forecast for two years, 11.2% for three years, and 24.4% for five years. Only 2.4% forecast for six or more years.

Employers in business and government generally forecast for greater periods than employers in education.

If your organization uses manpower forecasting, how important are the following sources for forecasting? Answers are listed in mean score order. Absolute frequencies are listed for each answer with adjusted frequencies (%) shown in parentheses.

Sources	Mean Score	Sources of Forecasting Data					Row Total
		Of Extremely High Importance	Of High Importance	Of Medium Importance	Of Low Importance	Of No Importance	
Your Company's Studies	1.491	1 (5.9+5)	2 (35.0)	3 (4.0)	4 (0.0)	5 (1.5)	325
CPC Report	3.176	25 (8.2)	55 (21.2)	102 (33.3)	59 (19.3)	55 (18.0)	306
Recruiting Trends Report	3.284	9 (2.9)	55 (21.2)	116 (37.9)	52 (20.3)	54 (17.6)	306
Endicott Report	3.566	7 (2.4)	45 (15.5)	94 (32.4)	65 (22.4)	79 (27.2)	290

**OTHER FORECASTING SOURCES:** A few additional sources were cited as helpful when forecasting needs for new employees. These included current economic projections, state and national supply and demand reports, state and national labor statistics, Hay Associates industrial surveys, sales data, turnover figures and organizational growth assessments.

**OBSERVATIONS:** According to the surveyed employers, their own organizations' studies were the prime sources of forecasting. There followed by the College Placement Council report, the Recruiting Trends report and Endicott's report.

Because of the current recession, has your organization been forced to layoff any college trained personnel? Absolute frequencies are listed for each answer with adjusted frequencies (%) shown in the second line of each block.

Layoff College Trained Personnel

Employer Categories	COUNT ROW PC1	Yes	No	No Answer	Row Total
ACCOUNTING	0	24	1	0	25
	0	100.0	0	0	100.0
AEROSPACE	2	13	0	0	13
	13.3	86.7	0	0	100.0
AGRICULTURE	5	13	0	0	13
	27.8	72.2	0	0	100.0
AUTOMOTIVE	11	10	1	0	12
	52.9	47.6	0	0	100.0
EQUIPMENT	1	1	0	0	1
BANKING, FINANCE	1	1	0	0	1
INSURANCE	2	1	0	0	2
	2.0	97.6	0	0	100.0
CHEMICAL, DRUGS	4	24	1	0	25
	19.3	85.7	0	0	100.0
COMMUNICATION	33.3	2	0	0	33.3
CONSTRUCTION	2	13	0	0	13
BUILDING	13.3	86.7	0	0	100.0
EDUCATION	22	27	10	0	49
	44.9	55.1	0	0	100.0
ELECTRICAL EQUIPMENT	3	19	2	0	22
	13.5	83.3	0	0	100.0
ELECTRONICS	3	22	3	0	25
	12.0	88.0	0	0	100.0
FOOD-BEVERAGE	4	25	2	0	29
	15.8	85.2	0	0	100.0
GLASS, PAPER, PACKAGING	2	11	3	0	15
	15.4	84.6	0	0	100.0
GOVERNMENT ADMINISTRATION	2	18	1	0	20
	10.0	90.0	0	0	100.0
HOSPITAL-HEALTH	0	14	1	0	14
	0	100.0	0	0	100.0
HOTELS, RESTAURANT RECREATION	0	9	14	0	23
	0	100.0	0	0	100.0
MERCHANDISING	5	30	14	0	35
	14.3	85.7	0	0	100.0
METALS	8	18	21	0	25
	30.8	69.2	0	0	100.0
MILITARY	0	8	0	0	8
	0	100.0	0	0	100.0
PETROLEUM	1	17	1	0	18
	5.5	94.4	0	0	100.0
PRINTING PUBLICATIONS	1	8	14	0	23
	11.1	88.9	0	0	100.0
PUBLIC UTILITIES	3	31	0	0	34
	8.8	91.2	0	0	100.0
RESEARCH CONSULTANT	1	29	14	0	35
	3.3	96.7	0	0	100.0
SERVICE ORGANIZATION	0	2	0	0	2
	0	100.0	0	0	100.0
TIRE-RUBBER	100.0	0	0	0	100.0
	100.0	0	0	0	100.0
VOLUNTEER	0	4	14	0	14
	0	100.0	0	0	100.0
DIVERSIFIED CONGLOMERATE	3	4	20	0	27
	42.9	57.1	0	0	100.0
COLUMN TOTAL	95	435	424	0	520
	16.3	83.7	0	0	100.0

NUMBER OF MISSING OBSERVATIONS = 42

COMMENTS: Many organizations indicated that they have not laid off any college trained personnel because of the current recession. Others indicate that natural attrition and promotion have been sufficient to eliminate the need for layoffs. Others cut back on hiring. Still others eliminate training programs. Also, some research staff employees have felt the pinch. Some organizations have become much more diversified to insure against the ill effects of the recession. Other organizations use recessions for a time to eliminate marginal or low performers.

OBSERVATIONS: Because of the current recession, auto and mechanical equipment, communication, education, and metals and metal products organizations have laid off college graduates. Very few college graduates have been laid off in accounting, banking and finance, hospital and health services, hotel, restaurant, and institutional management organizations and the military.

To what extent are the following factors used by your organization when laying off salaried personnel? Answers are listed in mean score order. Absolute frequencies are listed for each answer with adjusted frequencies (%) shown in parentheses.

**Ratings of Factors for Layoffs**

Factors for layoffs	Mean Score	Always Almost Always					Never/Rarely	Row Total
		1	2	3	4	5		
Merit	1.805	205 (58.7)	70 (20.1)	34 (9.7)	17 (4.9)	23 (6.5)	349	
Seniority	2.410	120 (32.9)	92 (25.1)	81 (22.1)	30 (8.2)	43 (11.7)	366	
Importance of job held	2.550	86 (25.7)	95 (28.4)	68 (20.4)	20 (6.0)	55 (19.5)	334	
E.E.O. Regulations	3.000	79 (24.3)	58 (17.8)	60 (18.5)	40 (12.3)	83 (27.1)	325	
Hierarchical level of job held	3.153	41 (12.8)	67 (20.9)	92 (29.8)	42 (13.1)	78 (24.4)	320	
Geographical location of job held	3.923	15 (4.5)	31 (9.6)	69 (21.4)	57 (17.5)	151 (46.7)	323	
Willingness to relocate	3.994	8 (2.5)	29 (9.0)	70 (21.7)	66 (20.4)	150 (45.4)	323	

**OTHER FACTORS:** Some organizations used other factors such as elimination of positions, reduction of programs and poor performance as reasons for laying off salaried personnel. Sometimes transfer of abilities, skills or knowledge permitted individuals to remain employed.

**OBSERVATIONS:** According to the surveyed employers, salaried personnel were laid off according to merit, seniority, and importance of their job. Less relevant factors included EEO regulations, hierarchical level of job held, geographical location of position and employee's willingness to relocate.

Of all your expected new college hires in 1980-81 (this year), what percentages of graduates do you expect to employ in each of the following categories? The types of graduates are listed in mean score order. Absolute frequencies are listed for each answer with adjusted frequencies (%) shown in parentheses.

Categories of Graduates	Mean Score	Row Total								
		1-2	3-4	5-6	7-10	11-24	25-49	50-74	75-100	
PhD	3.40	100 (49.0)	24 (12.0)	22 (11.0)	30 (15.0)	13 (6.0)	11 (5.0)	2 (1.0)	0 (0.0)	203
Handicapper	3.46	113 (37.0)	68 (22.0)	57 (18.0)	58 (12.0)	21 (7.0)	4 (1.0)	5 (2.0)	3 (1.0)	309
Master's/MBA's	4.88	63 (17.0)	38 (10.0)	51 (13.0)	64 (17.0)	89 (23.0)	47 (12.0)	23 (6.0)	5 (1.0)	380
Minorities	5.32	24 (6.0)	26 (5.0)	48 (12.0)	100 (24.0)	148 (36.0)	43 (10.0)	18 (4.0)	4 (1.0)	411
Women	6.38	13 (3.0)	14 (3.0)	20 (5.0)	51 (12.0)	104 (24.0)	116 (27.0)	98 (23.0)	12 (3.0)	428
<b>Bachelor's Degree Only Majors</b>	<b>8.29</b>	<b>3 (1.0)</b>	<b>3 (1.0)</b>	<b>7 (1.0)</b>	<b>4 (1.0)</b>	<b>12 (2.0)</b>	<b>35 (7.0)</b>	<b>145 (30.0)</b>	<b>272 (57.0)</b>	<b>481</b>
<b>Academic Majors</b>										
Personnel	2.83	127 (62.0)	36 (17.0)	23 (11.0)	8 (4.0)	4 (2.0)	2 (1.0)	2 (1.0)	2 (1.0)	206
Physics	3.06	83 (52.0)	29 (18.0)	23 (14.0)	14 (9.0)	6 (4.0)	2 (1.0)	2 (1.0)	1 (1.0)	160
Communications	3.08	68 (57.0)	20 (17.0)	11 (9.0)	9 (7.0)	7 (6.0)	3 (3.0)	1 (1.0)	2 (2.0)	120
Mathematics	3.35	78 (38.0)	55 (26.0)	30 (14.0)	25 (12.0)	13 (6.0)	4 (2.0)	2 (1.0)	1 (0.0)	208
Social Science	3.39	59 (48.0)	18 (15.0)	13 (11.0)	12 (10.0)	14 (11.0)	3 (3.0)	1 (1.0)	1 (1.0)	122
Metallurgy, Material Science	3.42	49 (46.0)	18 (17.0)	13 (12.0)	13 (12.0)	6 (6.0)	5 (5.0)	1 (1.0)	2 (2.0)	107
Chemistry	3.57	70 (37.0)	39 (21.0)	31 (15.0)	23 (12.0)	12 (6.0)	7 (4.0)	5 (3.0)	2 (1.0)	189
Natural Science	3.65	33 (42.0)	15 (16.0)	10 (13.0)	8 (10.0)	6 (8.0)	6 (8.0)	2 (3.0)	1 (1.0)	79
Liberal Arts	3.78	61 (36.0)	31 (18.0)	22 (13.0)	13 (8.0)	31 (18.0)	7 (4.0)	5 (3.0)	0 (0.0)	170
Human Ecology	3.83	24 (51.0)	4 (9.0)	0 (0.0)	7 (15.0)	3 (6.0)	6 (13.0)	2 (4.0)	1 (2.0)	47
Financial Administration	3.84	92 (38.0)	36 (15.0)	32 (13.0)	32 (13.0)	23 (9.0)	16 (7.0)	9 (4.0)	4 (2.0)	244
Petroleum Engineering	3.85	15 (37.0)	7 (17.0)	6 (15.0)	4 (10.0)	6 (15.0)	0 (0.0)	0 (0.0)	3 (7.0)	41
Civil/Sanitary Engineering	4.17	48 (35.0)	15 (11.0)	17 (13.0)	24 (18.0)	12 (9.0)	4 (3.0)	6 (4.0)	10 (7.0)	136
General Business	4.33	77 (27.0)	45 (16.0)	36 (13.0)	38 (14.0)	33 (12.0)	25 (9.0)	21 (7.0)	5 (2.0)	281
Chemical Engineering	4.50	45 (26.0)	20 (12.0)	20 (12.0)	26 (15.0)	32 (18.0)	16 (9.0)	11 (6.0)	3 (2.0)	173
Computer Science	4.51	62 (23.0)	40 (15.0)	28 (10.0)	57 (21.0)	41 (15.0)	27 (10.0)	8 (3.0)	10 (4.0)	273
Education	4.61	43 (39.0)	17 (16.0)	7 (6.0)	4 (4.0)	5 (5.0)	1 (1.0)	7 (6.0)	25 (23.0)	109
Agriculture & Nat. Resources	4.66	32 (33.0)	11 (11.0)	9 (9.0)	8 (8.0)	10 (10.0)	7 (7.0)	6 (6.0)	13 (14.0)	96
Accounting	4.66	77 (22.0)	50 (14.0)	50 (14.0)	62 (17.0)	52 (15.0)	19 (5.0)	15 (4.0)	31 (9.0)	356
Marketing/Sales	4.82	49 (21.0)	35 (15.0)	26 (11.0)	39 (16.0)	28 (12.0)	23 (10.0)	26 (11.0)	12 (5.0)	238
Electrical Engineering	5.30	46 (19.0)	17 (7.0)	25 (11.0)	27 (11.0)	32 (14.0)	50 (21.0)	24 (10.0)	16 (7.0)	237
Hotel/Rest/Inst. Management	5.33	14 (29.0)	21 (2.0)	5 (10.0)	6 (12.0)	5 (6.0)	3 (6.0)	12 (24.0)	5 (10.0)	49
Mechanical Engineering	5.42	36 (14.0)	18 (7.0)	20 (8.0)	53 (20.0)	50 (19.0)	47 (18.0)	23 (9.0)	15 (6.0)	262

**OBSERVATION:** Over 75% of new college hires expected by the surveyed employers are bachelor's graduates. Employers expect to hire 25-50% women, 11-24% minorities, 9-10% master's/MBA's, 5-6% handicappers, and 5-6% Ph.D.'s. Considering academic majors, most demanded by volume were accounting, mechanical engineering, electrical engineering, marketing/sales, computer science, general business administration, financial administration, mathematics, and personnel administration majors, respectively. Most demanded by percent of hires were engineering; mechanical engineering; hotel, restaurant, and institutional management majors; electrical engineering; marketing/sales graduates and accounting majors.

What changes, if any, does your organization anticipate in the hiring of new college graduates for 1980-81? Degree level and academic major are listed in mean-score order. Absolute frequencies are listed for each answer with adjusted frequencies (%) shown in parentheses.

Categories of Graduates	Mean Score	Increase										Decrease											
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
Computer Science	7.91	7	1	4	18	36	20	15	2	8	135	0	1	0	0	0	2	3	1	3	2	5	531
Electrical	7.93	10	11	14	20	9	19	7	15	177	0	1	0	0	0	0	0	3	1	3	2	5	505
Mechanical	8.21	6	8	14	24	7	15	15	11	135	0	1	0	1	0	1	0	4	6	2	6	6	315
Chemical	8.55	4	4	1	15	1	12	10	13	178	2	1	0	0	0	1	0	3	4	3	2	6	258
Petroleum	8.64	3	2	0	8	0	5	5	3	144	0	0	0	0	0	0	1	3	1	1	1	1	173
Chemistry	8.66	2	1	4	10	1	7	10	10	207	2	0	0	0	0	0	2	2	1	2	1	3	253
Physics	8.75	3	1	4	8	1	6	9	8	173	2	0	0	0	1	0	1	1	2	1	1	2	247
Metallurgy, Material Science	8.76	2	0	1	7	3	7	6	12	158	3	0	0	0	0	0	1	2	1	1	1	3	218
Math	8.78	2	0	3	13	1	8	10	12	214	5	1	0	0	0	0	2	2	1	2	1	3	280
Hotel/Rest/Inst. Management	8.84	3	1	1	3	1	0	1	1	150	0	1	0	0	0	1	1	2	1	2	1	0	167
Agriculture & Nat Resources	8.86	1	3	0	6	2	1	2	6	172	2	1	0	0	0	0	2	1	2	0	1	1	204
Civil	8.86	5	1	2	7	1	5	11	9	156	4	4	4	0	0	8	1	3	2	4	2	3	237
Accounting	8.87	5	1	5	23	8	8	10	17	254	5	3	4	0	0	2	5	7	11	385	385		
Sanitary	8.88	1	0	3	4	0	2	1	5	147	2	0	2	0	1	2	1	1	1	1	1	1	172
Marketing/Sales	8.88	1	1	3	16	6	6	11	226	5	2	2	1	2	1	3	1	9	2	6	302		
Human Ecology	8.98	1	1	1	1	2	0	2	0	158	1	0	0	0	0	2	1	1	1	1	1	1	171
Financial Administration	9.00	3	1	3	8	5	3	8	16	243	3	2	1	1	1	1	5	8	317	317			
General Business	9.07	2	2	3	11	0	5	8	16	249	3	3	1	1	1	1	1	4	7	329	329		
Personnel	9.11	1	1	2	0	4	7	19	219	1	1	1	0	0	1	5	2	5	2	5	5	275	
Communications	9.15	1	0	0	3	0	1	3	6	179	2	1	0	0	0	2	2	1	2	1	3	210	
Liberal Arts	9.19	1	0	0	5	3	0	2	3	208	3	3	1	0	0	0	2	6	2	6	6	246	
Social Science	9.28	1	0	1	2	0	0	1	2	135	5	0	0	0	0	1	3	1	2	1	2	211	
	9.40	1	0	0	0	1	2	1	2	137	5	2	1	0	0	1	5	2	5	2	5	221	

What changes, if any, does your organization anticipate in the hiring of new college graduates for 1980-81? Degree level and academic major are listed in mean score order. Absolute frequencies are listed for each answer with adjusted frequencies (%) shown in parentheses.

Categories of Graduates	Mean Score	Increase										Decrease										Row Score
		50% or More	25-49%	11-24%	9-10%	7-8%	5-6%	3-4%	1-2%	Remain the Same	1-2%	3-4%	5-6%	7-8%	9-10%	11-12%	25-24%	49-48%	50-50%			
Minorities	7.34	11	14	25	39	14	53	33	34	9	10	11	12	13	14	15	16	17	18	19	438	
Women	7.75	10	7	21	58	10	28	25	20	232	1	4	1	3	2	0	7	8	7	445		
Handicappers	8.24	2	7	31	51	5	14	27	57	235	2	1	0	0	1	1	3	3	2	2	401	
All new college graduates	8.65	13	16	23	38	11	13	7	9	245	1	3	4	2	2	14	20	13	13	461		
Graduates with MBAs	8.92	5	0	3	21	12	5	22	237	2	8	1	3	1	0	10	6	7	8	359		

What changes, if any, do you expect in salary offers to 1980-81 college graduates at various degree levels? Degree levels are listed in mean score order. Absolute frequencies are listed for each answer with adjusted frequencies (%) shown in parentheses.

Categories of Graduates	Mean Score	Increase										Decrease										Row Total
		Over 10%	9%	7%	5%	3%	1-2%	remain the Same	1-2%	3-4%	5-6%	7-8%	9-10%	Over 10%								
Bachelor's	3.806	1	2	3	4	5	6	7	8	9	10	11	12	13								385
		(8.5)	(23.9)	(25.9)	(10.9)	(4.7)	(2.3)	(19.2)	(0.0)	(.9)	(.5)	(.5)	(.5)	(.5)								
Master's/MBA's	3.938	2	3	79	80	31	15	9	70	0	3	0	2	1								322
		(9.0)	(24.5)	(24.8)	(9.5)	(4.7)	(2.8)	(21.7)	(0.0)	(.9)	(.0)	(.6)	(.9)	(.3)								
Ph.D.	4.267	4	19	48	39	17	7	2	53	0	0	3	0	2								202
		(9.4)	(25.8)	(19.3)	(8.4)	(3.6)	(1.0)	(31.2)	(0.0)	(1.5)	(0.0)	(1.0)	(.5)	(.5)								

(Continued) What changes, if any, do you expect in salary offers to 1980-81 college graduates by academic major? Academic majors are listed in mean score order. Absolute frequencies are listed for each answer with adjusted frequencies (%) shown in parentheses.

Academic Majors	Mean Score	Increase										Decrease										Row Total
		Over 10%	9-10%	7-8%	5-6%	3-4%	2-2%	remain the Same	1-2%	3-4%	5-6%	7-8%	9-10%	Over 10%	11	12	13					
Electrical Engineers	3.653	23	86	44	20	8	2	19	0	3	2	1	1	0	1	0	0	0	0	0	253	
Computer Science	3.660	38	60	47	16	6	4	38	0	3	1	1	0	0	0	0	0	0	0	0	255	
Mechanical Engineers	3.699	24	88	51	23	7	30	3	3	2	2	2	1	0	0	0	0	0	0	0	259	
Chemical Engineers	3.823	19	67	36	11	3	1	19	0	3	3	2	1	0	0	0	0	0	0	0	192	
Civil Engineers	4.090	13	48	35	21	5	9	15	0	3	1	1	1	0	0	0	0	0	0	0	179	
Accounting	4.133	22	64	40	35	23	7	76	0	3	1	1	1	0	0	0	0	0	0	0	313	
General Business Administration	4.263	13	57	61	33	19	6	53	0	5	2	2	0	0	0	0	0	0	0	0	252	
Chemistry	4.261	10	45	41	18	8	3	33	0	3	1	1	0	0	0	0	0	0	0	0	184	
Mathematics	4.291	13	44	36	19	16	3	31	0	3	1	1	1	0	0	0	0	0	0	0	139	
Marketing/Sales	4.342	16	50	50	18	15	6	52	0	3	3	2	2	0	0	0	0	0	0	0	228	
Financial Admin.	4.355	14	45	64	23	18	4	54	0	3	2	4	4	0	0	0	0	0	0	0	242	
Metallurgy & Material Science	4.392	8	44	24	11	2	4	49	0	3	1	1	1	0	0	0	0	0	0	0	148	
Physics	4.469	9	33	31	19	11	1	30	0	3	2	0	0	0	0	0	0	0	0	0	163	
Petroleum Engineers	4.527	9	31	15	2	2	1	44	0	3	1	1	1	0	0	0	0	0	0	0	110	
Personnel Admin.	4.633	9	36	44	18	15	4	55	0	3	2	1	1	0	0	0	0	0	0	0	199	
Education	4.697	11	35	36	7	3	3	36	0	3	2	1	1	0	0	0	0	0	0	0	153	
Agriculture & Nat Resources	4.806	7	28	22	5	5	3	54	0	3	1	0	0	0	0	0	0	0	0	0	123	
Hotel/Rest/Inst Management	4.940	4	25	22	5	5	1	48	0	3	2	1	1	0	0	0	0	0	0	0	116	
Liberal Arts (Arts & Letters)	5.065	6	24	26	17	5	3	48	0	3	2	1	1	0	0	0	0	0	0	0	154	
Communications	5.141	3	24	26	8	3	5	38	0	3	2	1	1	0	0	0	0	0	0	0	135	
Human Ecology	5.231	5	18	16	4	3	1	47	0	3	2	1	1	0	0	0	0	0	0	0	104	
Social Sciences	5.242	6	21	22	5	4	4	39	0	3	3	1	1	0	0	0	0	0	0	0	128	

**OBSERVATIONS:** Salary offers to 1980-81 college graduates are expected to increase for bachelor's graduates (about 5-6%), master's and MBA's (about 5-6%), and Ph.D.'s (about 5%). The highest starting salaries increases (about 5-6%) are expected for electrical engineers, computer science majors, chemical engineers, and mechanical engineers. Increases of 5% are expected for civil engineers, accountants, education and general business administration majors. Those majors with the lowest expected increases, at the 3-4% level, are social science, human ecology, communication, and liberal arts majors. Compared to last year's starting salaries, increases are somewhat lower.

What changes, if any, does your organization anticipate in the hiring of new college graduates for 1980-81? The academic majors are listed in mean score order. Absolute frequencies are listed for each answer with adjusted frequencies (%) shown in parentheses.

Type of Employer	Mean Score	Increase										Decrease								Row Total
		50% or More	25%	11%	9%	7%	5%	3%	1%	Remain the Same	1-	3-	5-	7-	9-	11-	25%	50%		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
Glass, Paper, Packaging & Allied Products	5.58	2	1	1	1	1	1	0	0	5	0	0	0	0	0	0	0	0	42	
Petroleum & Allied Products	5.81	1	1	1	0	6	1	1	0	0	5	1	0	0	0	0	0	0	16	
Research and/or Consulting Services	6.15	0	0	3	5	2	0	2	0	13	0	0	0	0	0	0	1	0	26	
Hotels, Motels, Resorts, Camps, Recreational Facilities	7.43	0	0	0	2	0	0	0	0	14	57	0	0	0	0	0	0	0	7	
Hospitals & Health Services	7.93	0	1	1	3	0	0	0	0	8	0	0	0	0	0	0	1	0	14	
Public Utilities (Including Transportation)	7.60	2	2	4	1	0	2	0	0	8	0	1	0	0	1	1	2	0	25	
Electrical Machinery & Equipment (Computers)	7.68	2	3	1	1	0	2	0	0	9	0	0	0	1	1	1	2	0	22	
Food, Beverage Processing, and Restaurants	7.72	1	3	1	0	0	0	0	2	17	0	0	0	0	0	0	0	0	25	
Military	7.83	0	1	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	6	
Electronics & Instruments	7.88	1	1	4	3	1	1	1	0	6	0	1	0	0	0	1	3	1	24	
Agriculture	8.31	0	1	1	1	0	1	0	0	11	69	0	0	0	0	0	1	0	25	
Printing, Publishing & Informational Services	8.44	0	0	0	2	0	0	0	0	6	0	0	0	0	0	11	0	0	9	
Accounting	8.78	0	1	0	2	2	0	1	0	13	0	0	0	1	0	1	0	0	23	
Banking, Finance, & Insurance	8.95	2	0	2	0	1	0	0	0	30	0	0	0	0	3	1	3	1	40	
Mechanizing & Related Services (Retailing Industries)	9.03	0	0	1	4	2	0	0	0	15	2	0	0	0	0	1	1	1	31	
Construction & Building Materials Manufacturing	9.23	1	0	0	2	0	1	0	0	5	0	0	1	0	1	0	0	2	33	
Chemicals, Drugs, & Allied Products	9.24	0	0	1	2	0	2	0	0	15	0	0	0	0	3	1	1	0	25	
Aerospace & Components	9.37	5	1	0	5	1	0	5	1	9	0	0	0	0	2	1	1	1	19	
Governmental Administration	9.56	0	0	6	1	0	6	1	0	11	69	0	0	0	0	19	3	0	16	
Volunteer Organizations (Churches, Peace Corps)	9.80	0	0	0	0	0	0	0	0	4	80	0	0	0	0	1	0	0	5	
Automotive & Mechanical Equipment	10.33	0	0	1	0	1	1	1	0	8	53	0	0	0	0	0	1	3	15	
Metals & Metal Products	10.36	0	0	3	0	0	0	2	0	11	44	0	0	0	0	4	1	1	25	
Educational Institutions	10.50	0	0	0	0	0	0	0	3	24	80	63	0	0	2	1	3	2	38	

What changes, if any, does your organization anticipate in the hiring of new college graduates for 1980-81? The types of graduates are listed in mean score order. Absolute frequencies are listed for each answer with adjusted frequencies (%) shown in parentheses.

Types of Graduates	Mean Score	Increase													Decrease							Row Total
		50% or More	25-49%	11-24%	9-10%	7-8%	5-6%	3-4%	1-2%	Remain the Same	1-2%	3-4%	5-6%	7-8%	9-10%	11-24%	25-49%	50-100%				
Diversified Conglomerates	11.00	0	0	1	0	0	0	0	0	2	0	0	0	0	2	0	0	0	17	6		
Communication (Radio, TV & News papers)	12.00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	2		
Service Organizations (Boy Scouts, Red Cross)	15.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1		

What percentage change, if any, do you anticipate in the number of CAMPUSES VISITED for recruiting by your organization in 1980-81?

Percentage Change	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
NO ANSWER	0	40	7.1	7.4	7.4
INC 50-100	1	25	4.4	4.6	12.0
INC 25-49	2	16	2.8	2.9	14.9
INC 11-24	3	25	4.4	4.6	19.5
INC 9-10	4	44	7.8	8.1	27.6
INC 7-8	5	5	.9	.9	28.5
INC 5-6	6	12	2.1	2.2	30.8
INC 3-4	7	25	4.4	4.6	35.4
INC 1-2	8	13	2.3	2.4	37.8
REMAIN THE SAME	9	227	40.4	41.8	79.5
DEC 1-2	10	8	1.4	1.5	81.0
DEC 3-4	11	5	.9	.9	82.0
DEC 5-6	12	9	1.6	1.7	83.5
DEC 7-8	13	2	.4	.4	84.0
DEC 9-10	14	33	5.9	6.1	90.1
DEC 11-24	15	19	3.4	3.5	93.5
DEC 25-49	16	17	3.0	3.1	96.7
DEC 50-100	17	18	3.2	3.3	100.0
NO JE HIRED	18	19	3.4	MISSING	
	TOTAL	562	100.0	100.0	
MEAN		7.958			
VALID CASES		543	MISSING CASES	19	

**OBSERVATIONS:** According to survey responses, employers will be visiting a few more campuses this year compared to last. This increase is expected to be about 1-2%. Of the surveyed employers, 29.1% expect to increase their number of campus visits by 3-4% or more.

For the previous (1979-80) and current (1980-81) years, please indicate the average starting salaries PER YEAR by degree level for those academic majors hired in your organization. ALL EMPLOYER CATEGORIES.

Degree Level	Academic Major	Average Salary Offers 1979-80	VALID CASES	Average Salary Offers 1980-81	VALID CASES
BACHELOR'S	Agriculture & Nat. Res.	13851.02	49	14529.73	37
	Accounting	14808.66	277	15514.03	221
	Financial Admin.	14468.97	116	15162.11	95
	General Business	14009.09	187	14572.26	155
	Hotel/Rest./Inst. Mgt.	12821.95	41	13456.76	37
	Marketing/Sales	14423.27	159	15023.85	130
	Personnel	14358.56	111	14826.51	83
	Communications	13239.58	48	13851.22	41
	Education	12030.77	78	12671.83	71
	Chemical	19579.03	124	20650.00	90
	Civil	13276.85	108	19086.67	75
	Computer Science	17025.14	179	18017.51	142
	Electrical	19173.48	181	20424.24	132
	Mechanical	19321.39	201	20457.82	147
	Metallurgy & Mat. Sci.	18598.48	65	19587.76	49
	Petroleum	19476.47	34	20314.81	27
	Human Ecology	12660.71	28	13391.67	24
	Liberal Arts	12912.22	90	13446.67	75
	Chemistry	15908.33	108	16587.06	85
	Math	15810.19	108	16512.64	87
	Physics	16523.81	63	17168.53	51
	Social Science	12540.00	55	12969.57	46
MASTER'S		18443.80	258	19589.86	217
Ph.D.		22213.25	83	22687.65	81

**OBSERVATIONS:** This year the highest average starting salaries are expected by the following majors: chemical engineers (\$20,650), mechanical engineers (\$20,458), electrical engineers (\$20,424), and petroleum engineers (\$20,314). Master's degree graduates are expected to average \$19,690 this year, and doctoral degree recipients are expected to start at \$22,688. The increase this year for Ph.D.s is especially soft, since the average offer last year was \$22,213.

For the previous (1979-80) and current (1980-81) years, please indicate the average starting salaries PER YEAR by degree level for those academic majors hired in your organization. BUSINESS AND INDUSTRY ONLY.

Degree Level	Academic Major	Average Salary Offer 1979-80	VALID CASES	Average Salary Offer 1980-81	VALID CASES
<b>BACHELOR'S</b>					
	Agriculture & Nat. Res.	14082.50	40	14848.28	29
	Accounting	14920.00	255	15749.01	202
	Financial Admin.	14583.50	103	15272.62	84
	General Business	14030.23	172	14673.05	141
	Hotel/Rest./Inst. Mgt.	12553.64	33	13351.61	31
	Marketing/Sales	14472.67	150	15089.34	122
	Personnel	14497.89	95	14975.71	70
	Communications	13200.00	40	13857.58	33
	Education	12112.00	25	12323.81	21
	Chemical	19905.31	113	21071.60	91
	Civil	19580.22	91	19457.38	61
	Computer Science	17184.85	165	18217.69	139
	Electrical	19455.49	164	20750.85	118
	Mechanical	19600.00	184	20742.86	133
	Metallurgy & Mat. Sci.	19101.75	57	20169.05	42
	Petroleum	20500.00	26	21395.24	21
	Human Ecology	12310.00	20	13176.47	17
	Liberal Arts	12894.87	78	13441.54	65
	Chemistry	16341.94	93	17131.94	72
	Math	15154.26	94	17062.67	75
	Physics	17042.59	54	17779.55	44
	Social Science	12582.22	45	12913.16	38
<b>MASTER'S</b>					
		20056.48	193	21468.79	157
<b>Ph.D.</b>		25503.57	56	27185.71	49

**OBSERVATIONS:** Average starting salary offers for 1980-81 reported by business and industry employers are expected to remain somewhat higher than the overall average offer made by all employer types.

For last year (1979-80) and this year (1980-81) please indicate the average starting salary PER YEAR by degree level for those academic majors hired in your organization. GOVERNMENTAL AGENCIES ONLY.

Degree Level	Academic Major	Average Salary Offers 1979-80	VALID CASES	Average Salary Offers 1980-81	VALID CASES
<b>BACHELOR'S</b>					
	Agriculture & Nat. Res.	12952.50	8	13542.86	7
	Accounting	13505.26	19	14156.25	15
	Financial Admin.	13561.54	13	14318.18	11
	General Business	13736.67	15	14664.29	14
	Hotel/Rest./Inst. Mgt.	13628.57	7	14120.00	5
	Marketing/Sales	13500.00	9	14025.00	8
	Personnel	13693.33	15	14225.00	12
	Communications	13728.57	7	14014.29	7
	Education	13728.57	7	14350.00	5
	Chemical	15227.27	11	16855.56	9
	Civil	15117.65	17	17471.43	14
	Computer Science	15230.77	13	15927.27	11
	Electrical	16452.94	17	17671.43	14
	Mechanical	15305.88	17	17750.00	14
	Metallurgy & Mat. Sci.	15411.11	9	16100.00	7
	Petroleum	15825.00	8	16533.33	6
	Human Ecology	13800.00	7	14283.33	5
	Liberal Arts	13360.00	10	13800.00	8
	Chemistry	13325.00	12	14140.00	10
	Math	14254.55	11	14500.00	9
	Physics	13850.00	8	13816.67	6
	Social Science	13450.00	8	13816.67	6
<b>MASTER'S</b>		17830.00	15	19315.38	13
<b>Ph.D.</b>		21250.00	5	22275.00	4

**OBSERVATIONS:** In government, starting salaries for almost all academic majors are somewhat lower than the overall average.

Does your organization negotiate starting salaries with new college hires (compared to a fixed starting salary for all college hires)? Absolute frequencies are listed for each answer with adjusted frequencies (%) shown in the second line of each block.

Responses for Negotiating Starting Salaries

Employer Categories	COUNT	1	YES	VS	1	2	1	3	1	0	1	ROW TOTAL
	ROW PCT	1	1	VS	1	2	1	3	1	0	1	ROW TOTAL
BUSINESS-INDUSTRY	1	94	1	216	1	131	1	33	1	0	1	441
	21.3	21.3	1	49.0	1	29.7	1	0	1	0	1	83.3
GOVERNMENT	2	1	1	19	1	9	1	0	1	0	1	29
	3.4	3.4	1	55.5	1	31.0	1	0	1	0	1	5.5
EDUCATION	3	1	3	48	1	5	1	34	1	0	1	55
	5.4	5.4	1	85.7	1	8.9	1	0	1	0	1	10.3
COLUMN TOTAL	38	38	1	283	1	145	1	36	1	0	1	525
TOTAL	18.6	18.6	1	53.8	1	27.6	1	0	1	0	1	100.0

NUMBER OF MISSING OBSERVATIONS = 36

COMMENTS: Especially important when negotiating starting salaries for new college hires are prior work experiences. Sometimes grade point average, class ranking in university, co-op experience, and part-time work experiences were considered. Also relevant were job market conditions and location of positions. Many organizations had a range for starting salaries for graduates for various degree levels and academic majors within these ranges starting salary is dependent upon work experience, academic level and class standing. Both education and government employers have established starting salary rates for certain degree levels, academic majors and positions which are fixed and not negotiable. Some employers offered extra starting salary incentives for certain areas of expertise. Others indicated that they made competitive salary offers, based on research and starting salaries, in the job market and, therefore, do not negotiate starting salaries.

OBSERVATIONS: Only a few employers (18.6%) reported routine starting salary negotiations with new college hires, and the vast majority of these were conducted by business employers. Government and education employers generally have fixed starting salaries. However, the possibility of starting salary negotiations under certain circumstances was more likely to occur in government and business than in education.

To what extent does your organization use the following procedures when making offers of employment to new college hires? Procedures are listed in mean score order. Absolute frequencies are listed for each answer with adjusted frequencies (%) shown in parentheses.

Procedures for Making Offers	Mean Score	Ratings of Procedures Used for Making Offers					Row Total
		Always Almost Always	Usually	Sometimes	Seldom	Never/Rarely	
		1	2	3	4	5	
Written letter	1.402	421 (81.4)	31 (6.0)	33 (5.4)	17 (3.3)	15 (2.3)	517
Verbal commitment	2.010	279 (58.4)	48 (10.0)	70 (14.6)	29 (6.1)	52 (10.9)	478
Written contract	4.000	82 (19.4)	7 (1.7)	19 (4.5)	35 (8.5)	279 (66.0)	423
Telegram	4.497	10 (2.5)	1 (.3)	53 (13.5)	49 (12.4)	231 (71.3)	394

**OBSERVATIONS:** When making offers of employment to new college hires, employers almost always use written letters. This was followed closely by verbal commitments. Seldom used were telegrams. Written contracts were used by 82.0% of the educational institutions.

How does your organization handle withdrawals of employment offers to new college graduates have accepted employment with you? Responses are shown below for each employer category.

Use of Job Offer Withdrawal Procedures by Percentage

All Employers

Procedures Used	Number of responses
No Organizational Policy	203
Letter (candidate)	167
Phone call (candidate)	162
Letter (Placement)	92
Absorb costs incurred by candidate	73
Policy guarantees employment for specific length of time	52
Phone call (Placement)	51
Telex (candidate)	14
Telex (Placement)	7

Business and Industry Employers

Procedures Used	Number of responses
No Organizational Policy	178
Phone call (candidate)	136
Letter (candidate)	127
Letter (Placement)	76
Absorb costs incurred by candidate	69
Phone call (Placement)	46
Policy guarantees employment for specific length of time	36
Telex (candidate)	13
Telex (Placement)	7

Government Employers

Procedures Used	Number of responses
Letter (candidate)	19
Phone call (candidate)	12
Letter (Placement)	8
No Organizational Policy	7
Policy guarantees employment for specific length of time	4
Phone calls (Placement)	3
Absorb costs incurred by candidate	3
Telex (candidate)	1
Telex (Placement)	0

Education Employers

Procedures Used	Number of Responses
Letter (candidate)	21
No Organizational Policy	18
Phone call (candidate)	14
Policy guarantees employment for specific length of time	12
Letter (Placement)	8
Phone call (Placement)	2
Absorb costs incurred by candidate	1
Telex (Placement)	0
Telex (candidate)	0

**OTHER PROCEDURES FOR WITHDRAWAL OF OFFERS:** Most employers reported they (78) will not withdraw an offer once it has been accepted, however, many employers (49) had no experience with this situation. Other employers comments included "we honor our contracts," "we only withdraw in extremely rare situations," and or "it would almost be a national disaster before we would withdraw an offer." Most employers only extended offers for the number of positions they had available. One organization required a personal conference before an offer was withdrawn and another mentioned a policy one month's pay provision if an offer was withdrawn. In general, through, employers understand the professional ethics involved in withdrawing an offer.

**OBSERVATIONS:** Many employers (203) do not have a policy on withdrawals of employment offers. However, did if withdrawal of an offer became necessary most employers write the candidates (167) or telephone the candidates (162). They also notified the placement office in writing (92) or by telephone (51). At the same time, many employers (73) absorbed any costs incurred by the candidate because the offer was withdrawn. Some employers' policies (52) guaranteed employment for specific length of time after hired if work was satisfactory.

With respect to your organization's hiring policy, which of the following candidates do you hire?  
 Types and numbers of responses of the organizations are shown below.

Classifications of Candidates	Number of Responses
U.S. Citizens	534
Foreign nationals with work visas	249
Foreign nationals for employment abroad	58
Other policy regarding foreign nationals	44

**OBSERVATIONS:** Most surveyed employers hire U.S. citizens (95%) and foreign nationals with visas (44%). Only a few (10.3%) employ nationals for assignments overseas.

In your opinion, what is the current supply and demand for the following academic majors and degree levels? Absolute frequencies are listed for each answer with adjusted frequencies (%) shown in parentheses. Types of graduates are listed in mean score order.

Supply and Demand of College Graduates

Type of Graduates	Mean Score	Low Supply/ High Demand	Possible Shortage/ Good Demand	Near Balance	Adequate Supply/ Few More Than Needed	Surplus	Row Total
Degree Level	Code	1	2	3	4	5	
Master's/MBA's	3.516	13 (3.0)	78 (17.9)	113 (25.9)	135 (31.0)	97 (22.2)	435
Bachelor's	3.659	14 (3.0)	62 (13.2)	141 (30.1)	105 (22.4)	147 (31.3)	469
Ph.D.	3.672	21 (5.8)	40 (11.9)	98 (27.0)	82 (22.6)	122 (33.6)	363
Academic Majors:							
Electrical Engineering	1.748	153 (47.8)	120 (35.2)	44 (12.9)	9 (2.6)	5 (1.5)	341
Petroleum Engineering	1.782	143 (57.7)	47 (19.0)	35 (14.5)	13 (5.2)	9 (3.5)	248
Computer Science	1.798	171 (48.0)	116 (32.6)	42 (13.8)	10 (2.8)	10 (2.8)	356
Mechanical Engineering	1.814	147 (42.7)	131 (38.1)	54 (15.7)	7 (2.0)	5 (1.5)	344
Chemical Engineering	1.870	138 (43.8)	105 (33.3)	53 (15.8)	13 (4.1)	5 (1.9)	315
Metallurgy & Material Science	2.134	77 (28.5)	103 (38.3)	72 (26.8)	10 (3.7)	7 (2.6)	269
Civil Engineering	2.567	50 (17.1)	93 (31.7)	100 (34.1)	34 (11.5)	15 (5.5)	293
Chemistry	3.023	19 (6.3)	73 (24.1)	126 (41.6)	52 (17.2)	33 (10.9)	303
Mathematics	3.036	22 (7.1)	65 (21.1)	132 (42.9)	58 (18.8)	31 (10.1)	308
Physics	3.080	19 (6.6)	58 (20.1)	124 (42.9)	57 (19.7)	31 (10.7)	289
Accounting	3.197	13 (3.2)	90 (22.4)	152 (37.9)	97 (24.2)	49 (12.2)	401
Financial Administration	3.346	5 (1.4)	58 (16.6)	142 (40.6)	101 (28.9)	44 (12.6)	350
Agriculture & Nat Resources	3.468	8 (3.4)	37 (15.6)	97 (36.7)	46 (19.4)	59 (24.9)	237
Hotel Rest & Institutional Mgt	3.493	7 (3.1)	25 (11.4)	95 (41.9)	47 (20.5)	53 (23.1)	229
Marketing/Sales	3.651	5 (1.8)	38 (11.6)	107 (32.7)	83 (27.2)	87 (26.9)	327
General Business Admin	3.723	4 (1.3)	21 (5.8)	140 (38.5)	113 (32.4)	84 (23.1)	364
Personnel	3.798	3 (0.9)	34 (10.2)	90 (27.1)	105 (31.6)	100 (30.1)	332
Human Ecology	3.871	5 (2.7)	14 (5.2)	70 (31.1)	48 (21.3)	87 (38.7)	225
Communications	3.922	1 (0.4)	13 (4.6)	90 (31.8)	82 (29.0)	37 (34.3)	283
Education	4.353	2 (0.5)	13 (4.2)	46 (14.7)	61 (19.7)	187 (50.5)	303

Type of Graduates	Mean Score	Supply and Demand of College Graduates					Row Total
		1 Low Supply/ High Demand	2 Possible Shortage/ Good Demand	3 Near Balance	4 Adequate Supply/ Few More Than Needed	5 Surplus	
Academic Majors	Code						
Social Science	4.409	2 ( .7)	3 ( 1.0)	45 (15.8)	53 (21.6)	177 (60.8)	291
Liberal Arts (Arts & Letters)	4.563	0 ( 0.0)	3 ( 1.0)	35 (12.3)	47 (15.0)	207 (70.6)	293

**OBSERVATIONS:** According to the surveyed employers, the most highly demanded academic majors were electrical engineering, petroleum engineering, computer science, mechanical engineering, and chemical engineering respectively. These are followed closely by the other technical majors. Least in demand were, liberal arts social science and education graduates.

Allegedly due to government regulations, organizations have at times hired college graduates who might not otherwise have been hired. Indicate the extent of agreement or disagreement of your organization with each of the following statements. Answers are listed in mean score order. Absolute frequencies are listed for each answer with adjusted frequencies (%) shown in parentheses.

Answers	Mean Score	Strongly Agree 1	Agree 2	Neither Agree nor Disagree 3	Disagree 4	Strongly Disagree 5	Row Total
<b>Employment Practices</b>							
There is a low supply of minorities	2.004	159 (32.4)	242 (45.1)	63 (12.6)	30 (5.7)	15 (2.9)	522
Our organization has a strong affirmative action program	2.081	145 (27.2)	239 (44.6)	119 (22.3)	27 (5.1)	5 (0.9)	534
Unusual measures are needed to attract minorities	2.593	82 (15.1)	211 (41.5)	90 (17.7)	84 (16.5)	42 (8.3)	509
Our organization has been strengthened by implementing EEOC policies	2.640	51 (9.5)	169 (31.9)	245 (46.2)	50 (9.4)	15 (2.8)	530
There is a low supply of women	2.837	78 (14.8)	160 (30.4)	107 (20.7)	128 (24.3)	51 (9.7)	526
Our organization has no special training program to enhance career opportunities for women/minorities	2.990	20 (3.8)	189 (36.1)	123 (24.7)	145 (27.9)	39 (7.5)	523
Unusual measures are needed to attract qualified women	3.048	41 (7.8)	157 (29.9)	123 (23.4)	144 (27.4)	60 (11.4)	525
Hiring practices have not changed because of government pressure	3.127	43 (8.0)	134 (25.0)	114 (21.3)	202 (37.7)	43 (8.0)	536
In our organization faster career advancement is offered to women	3.504	7 (1.3)	28 (5.3)	177 (37.5)	251 (43.8)	55 (12.3)	528
In our organization faster career advancement is offered to minorities	3.614	4 (.8)	21 (4.5)	195 (37.8)	212 (43.3)	52 (12.7)	499
To fill EEO quotas, our organization has had to lower our acceptable standards	3.668	4 (.8)	54 (10.2)	153 (28.9)	222 (41.9)	37 (18.3)	530
Salary bonuses are offered to attract women	3.975	4 (.8)	24 (4.6)	127 (24.5)	189 (36.5)	174 (33.6)	518
Salary bonuses are offered to attract minorities	3.980	4 (.8)	24 (4.9)	115 (23.5)	181 (37.0)	155 (33.7)	489

**OBSERVATIONS:** Employers were especially concerned about the low supply of qualified minorities, especially in the technical and business areas. Most organizations cited strong affirmative action programs as helpful in their task of locating qualified individuals. They also agreed that unusual measures were needed to attract qualified minorities. They disagreed that salary bonuses must be offered to attract qualified women and minorities and that organizations must lower their standards to fill Equal Employment Opportunity quotas.

What changes, if any, does your organization anticipate in the number of employment opportunities available for college students in the summer of 1981?

Percentage Change	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
INC 75-100	1	3	.5	.6	.5
INC 50-74	2	5	.9	.9	1.5
INC 25-49	3	8	1.4	1.5	3.0
INC 11-24	4	19	3.4	3.5	6.5
INC 6-10	5	51	9.1	9.5	15.0
INC 1-5	6	15	2.7	2.8	18.8
REMAIN THE SAME	7	311	55.3	57.8	76.5
DEC 1-5	8	8	1.4	1.5	78.1
DEC 6-10	9	9	1.6	1.7	79.7
DEC 11-24	10	9	1.6	1.7	81.4
DEC 25-49	11	8	1.4	1.5	82.9
DEC 50-74	12	8	1.4	1.5	84.4
DEC 75-100	13	7	1.2	1.3	85.7
NONE HIRED	14	77	13.7	14.3	100.0
NO ANSWER	0	24	4.3	MISSING	
	TOTAL	562	100.0	100.0	
MEAN		7.849			
VALID CASES		538	MISSING CASES	24	

**OBSERVATIONS:** The number of summer jobs for 1981 is expected to remain about the same. Of the surveyed employers who hire summer students, 21.9% expect an increase in summer jobs and 10.6% expect a decrease. It seems that summer jobs are the first to be cut if the job market declines for college graduates.

In your organization, what is the average cost per hire for new college graduates?

Employer Categories	COST PER HIRE	Number of Valid Cases
FOR ALL ORGANIZATIONS	1342.20	203
Accounting	1249.50	10
Aerospace & Components	1498.29	7
Agribusiness	2238.43	7
Automotive & Mechanical Equipment	1605.88	8
Banking, Finance, & Insurance	1501.33	15
Chemicals, Drugs, & Allied Products	1251.30	10
Communication (Radio, TV & Newspapers)	1999.50	2
Construction & Building Materials Manufacturing	1449.86	7
Educational Institutions	754.88	9
Electrical Machinery & Equipment (Computers)	1407.00	9
Electronics & Instruments	1533.22	9
Food, Beverage Processing, & Restaurants	590.64	11
Glass, Paper, Packaging & Allied Products	1399.20	5
Governmental Administration	1174.50	8
Hospitals & Health Services	916.22	9
Hotels, Motels, Resorts, Camps, Recreational Facilities	832.67	3
Merchandising & Related Services (Retailing Industries)	933.62	15
Metals & Metal Products	2049.86	14
Military	1127.33	3
Petroleum & Allied Products	1499.50	4
Printing, Publishing & Informational Services	1508.00	6
Public Utilities (Including Transportation)	1300.31	13
Research and/or Consulting Services	1318.25	14
Service Organizations (Boy Scouts, Red Cross)	999.00	1
Tire & Rubber	0.00	0
Volunteer Organizations (Churches, Peace Corps)	1400.00	2
Diversified Conglomerates	2200.00	1

**COMMENTS:** One organization mentioned that average costs per hire are difficult to generalize, since certain disciplines are easily available locally and others are only obtained from distant colleges and universities.

**OBSERVATIONS:** According to the surveyed employers, the average cost per new college hire was \$1,342. In business the cost was \$1,379 in government, \$1,162 and in education, \$755. The costs per hire in other organizational categories are listed above.

Please indicate your feelings for each of the following responses about the preparation of new college graduates for on-campus interviews. Answers are listed in mean score order. Absolute frequencies are listed for each answer with adjusted frequencies (%) shown in parentheses.

**Ratings of Types of Graduates**

Types of Graduates	Mean Score	Well Prepared					Poorly Prepared	Row Total
		1	2	3	4	5		
Students with meaningful summer employment or internships are better prepared	1.805	170 (32.3)	298 (56.5)	51 (9.7)	8 (1.5)	0 (0.0)	527	
Level of preparedness varies depending on interest and effectiveness of placement office	2.042	111 (20.9)	304 (57.4)	97 (18.3)	18 (3.4)	0 (0.0)	530	
Generally well-prepared	2.261	33 (5.2)	382 (71.8)	64 (12.0)	51 (9.5)	2 (0.4)	532	
Engineering	2.467	38 (9.9)	176 (46.0)	150 (39.2)	13 (3.4)	5 (1.6)	383	
Business	2.421	22 (5.4)	219 (53.3)	149 (35.3)	17 (4.1)	4 (1.0)	411	
Better prepared than a few years ago	2.496	33 (5.3)	250 (47.3)	200 (37.9)	40 (7.6)	5 (0.9)	528	
Available material has been studies prior to interviews	2.566	23 (4.3)	270 (50.8)	158 (29.7)	77 (14.5)	4 (0.8)	532	
Level of preparedness varies depending on size and quality of college/university	2.756	47 (8.9)	184 (34.8)	158 (29.9)	131 (24.8)	9 (1.7)	529	
Communication	2.841	5 (2.1)	59 (20.4)	203 (70.2)	17 (5.9)	4 (1.4)	289	
Natural Science	2.843	5 (1.6)	70 (23.0)	205 (67.5)	16 (5.2)	8 (2.6)	305	
Agriculture/Natural Resources	2.849	5 (1.8)	44 (16.2)	215 (78.3)	7 (2.6)	3 (1.1)	272	
Education	2.850	14 (4.4)	63 (19.6)	207 (64.5)	31 (9.7)	6 (1.9)	321	
Human Ecology	2.985	1 (0.4)	26 (9.5)	232 (84.4)	8 (2.9)	8 (2.9)	275	
Students know what they want to do	3.025	9 (1.7)	150 (28.4)	208 (35.3)	43 (27.0)	19 (3.5)	529	
Social Science	3.079	2 (0.7)	30 (10.8)	201 (72.6)	32 (11.6)	12 (4.3)	277	
Liberal Arts	3.138	1 (0.3)	49 (15.0)	197 (61.6)	54 (16.9)	20 (6.5)	320	
Memorized or canned answers are given	3.214	10 (1.9)	96 (18.0)	211 (39.6)	202 (37.9)	14 (2.6)	533	

**OBSERVATIONS:** Employers believe that new college graduates are generally well prepared for on-campus interviews and that level of preparedness varies, depending on the interest and effectiveness of a placement office. Further, they believe that students with meaningful summer employment experiences or internships are better prepared for interviews. Employers are especially critical of memorized or canned answers, and they also believe that liberal arts and social science students are the poorest prepared of new college graduates interviewed on campus.

Do you believe colleges/universities should do anything to increase interviewee preparedness?

Employer Categories	COUNT	ROW PCT	YES	NO	NO ANSWER	ROW TOTAL
			1	2	0	
BUSINESS-INDUSTRY	275	68.4	126	31.5	75	399
GOVERNMENT	2	50.0	12	12	54	24
EDUCATION	3	50.0	21	21	174	42
COLUMN TOTAL	306	65.8	159	34.2	978	465
ROW TOTAL					0	100.0

NUMBER OF MISSING OBSERVATIONS = 97

COMMENTS: Employers recommended that colleges and universities improve the preparation of students for job interviews through the following methods:

- explaining interviewing procedures, proper interview conduct, and effective resume writing techniques (31)
- familiarizing students with companies before they interview (20)
- conducting interview role-playing to better understand interviewing techniques and career decision-making (18)
- making students more aware of their career options (7)
- emphasizing the importance of keeping interview appointments because missing them prevents other students from interviewing, wastes the time of employers and increases employers' on-campus recruiting costs (5)
- increasing the number of career seminars and workshops on finding jobs (5)

Additional suggestions for placement officers as reported by employers are listed below:

- increase students' understanding of "sweat and long hours" required to be successful on the job
- make students aware that a degree is not a guarantee to instant promotion
- encourage students to interview only with employers that seriously interest them and not interview with employers simply for practice
- make company literature readily available to students
- assist students (including the freshman and sophomores) in identifying their career objectives
- schedule interviews only for students who have researched the companies prior to their interviews and are informed of companies' functions
- expand career resources libraries
- provide time for placement staff to spend more time in business to better understand their work and needs

Other employers recommended that faculty think more about the career preparedness of students, and that some smaller universities should give more attention and financial support to their placement offices. Another employer suggested that low demand graduates should get jobs through personnel offices rather than placement agencies.

**OBSERVATIONS:** A majority of the surveyed employers (65.8%) indicated that colleges and universities can help increase an interviewee's preparedness and potential for employment.

When recruiting new college graduates for employment in your organization, how important are each of the following factors? Answers are listed in mean score order. Absolute frequencies are listed for each answer with adjusted frequencies (%) shown in parentheses.

Selection Factors	Mean Score	Ratings of Selection Factors					Row Total
		Of Extremely High Importance	Of High Importance	Of Medium Importance	Of Low Importance	Of No Importance	
	1	2	3	4	5		
Honesty & Integrity	1.514	301 (55.0)	214 (39.1)	23 (5.3)	3 (.5)	0 (0.0)	547
Common Sense	1.527	299 (54.9)	207 (38.0)	37 (6.8)	2 (.4)	0 (0.0)	545
Ability to get things done	1.535	288 (52.5)	227 (41.4)	33 (6.0)	0 (0.0)	0 (0.0)	548
Initiative	1.551	280 (51.3)	232 (42.5)	33 (6.0)	1 (.2)	0 (0.0)	546
Reliability	1.567	245 (45.0)	259 (49.4)	31 (5.7)	0 (0.0)	0 (0.0)	545
Dependability	1.641	228 (42.0)	284 (52.3)	30 (5.5)	0 (0.0)	1 (.2)	543
Enthusiasm	1.672	245 (44.9)	239 (43.4)	52 (11.3)	2 (.4)	0 (0.0)	548
Interpersonal skills	1.709	225 (41.0)	252 (47.7)	59 (10.7)	3 (.5)	0 (0.0)	549
Motivation to achieve	1.732	212 (38.9)	262 (49.4)	62 (11.4)	2 (.4)	0 (0.0)	545
Judgment skills	1.765	190 (34.9)	295 (54.2)	55 (10.3)	3 (.6)	0 (0.0)	544
Oral communication skills	1.765	198 (36.5)	277 (51.1)	63 (11.6)	4 (.7)	0 (0.0)	542
Attitude toward work ethic	1.808	195 (35.5)	280 (50.7)	53 (11.4)	12 (2.2)	1 (.2)	552
Mental alertness	1.835	155 (30.2)	311 (57.0)	67 (12.3)	1 (.1)	2 (.4)	546
Problem solving ability	1.860	155 (28.5)	317 (53.3)	65 (11.9)	7 (1.3)	0 (0.0)	544
Intelligence	1.871	149 (27.5)	315 (58.1)	77 (14.2)	1 (.2)	0 (0.0)	542
Responsiveness	1.873	145 (26.8)	324 (59.6)	71 (13.1)	3 (.6)	0 (0.0)	544
Developed work habits	1.932	155 (28.7)	277 (50.9)	103 (18.9)	8 (1.5)	3 (.6)	544
Decision making skills	1.961	133 (25.5)	296 (54.6)	93 (18.1)	7 (1.3)	2 (.4)	542
Maturity	1.961	153 (28.1)	280 (51.4)	38 (18.0)	8 (1.5)	5 (1.1)	545
Academic major	1.984	167 (30.3)	257 (45.6)	100 (18.1)	23 (4.2)	4 (.7)	551
Innovative ideas	1.997	145 (26.8)	254 (48.7)	129 (23.8)	3 (.6)	1 (.2)	542
Emotional control	2.017	139 (25.6)	257 (49.8)	120 (22.2)	12 (2.2)	1 (.2)	540
Flexibility	2.028	128 (23.7)	280 (51.8)	123 (22.7)	10 (1.4)	0 (0.0)	541

(Continued) When recruiting college graduates for employment in your organization, how important are each of the following factors? Answers are listed in mean score order. Absolute frequencies are listed for each answer with adjusted frequencies (%) shown in parentheses.

Selection Factors	Mean Score	Ratings of Selection Factors					Row Total
		Of Extremely High Importance	Of High Importance	Of Medium Importance	Of Low Importance	Of No Importance	
		1	2	3	4	5	
Adaptability to available jobs	2.078	118 (22.5)	280 (52.9)	105 (19.8)	24 (4.5)	2 (.4)	529
Written communication skills	2.080	114 (21.2)	286 (53.3)	119 (22.2)	16 (3.0)	2 (.4)	537
Personality	2.096	137 (25.3)	245 (45.3)	135 (25.0)	18 (3.3)	5 (1.1)	541
Courteousness	2.101	122 (22.5)	260 (48.0)	146 (26.9)	11 (2.0)	3 (.6)	542
Expertise in major field	2.115	134 (25.0)	235 (43.8)	143 (26.6)	22 (4.1)	3 (.6)	537
Assertiveness	2.142	110 (20.0)	272 (49.5)	146 (25.6)	21 (3.8)	0 (0.0)	549
Friendliness	2.149	118 (21.7)	243 (44.7)	157 (30.7)	16 (2.9)	0 (0.0)	544
Degree level and reliability	2.185	102 (19.1)	254 (47.6)	160 (30.0)	13 (2.4)	5 (.9)	534
Aggressiveness	2.187	110 (20.4)	251 (46.5)	150 (27.8)	26 (4.8)	3 (.6)	540
Technical expertise	2.210	113 (22.0)	246 (45.8)	126 (23.5)	36 (6.7)	11 (2.0)	537
Directness	2.223	94 (15.5)	266 (49.4)	172 (32.0)	13 (3.0)	0 (0.0)	538
Previous career related work experiences	2.330	87 (15.0)	235 (43.3)	132 (33.4)	33 (5.4)	5 (.9)	545
Willingness to take extra assignments	2.331	74 (13.7)	244 (45.2)	194 (35.9)	25 (4.6)	3 (.6)	540
Career and work aspirations well-defined	2.334	77 (13.9)	257 (46.4)	183 (33.0)	32 (5.8)	5 (.9)	554
Knowledge of work expectancy	2.370	77 (14.3)	218 (40.5)	212 (39.4)	24 (5.4)	2 (.4)	538
Grade point average (major)	2.411	69 (12.6)	227 (41.5)	213 (38.9)	33 (6.0)	5 (.9)	547
Suitable appearance	2.453	59 (10.8)	258 (43.7)	200 (36.7)	38 (7.0)	10 (1.8)	545
Locational preferences	2.573	83 (15.4)	170 (31.5)	197 (35.5)	69 (12.8)	20 (3.7)	537
Business	2.611	74 (14.9)	165 (33.3)	167 (33.7)	60 (12.1)	30 (5.0)	496
Part-time and/summer work experiences	2.616	57 (10.5)	182 (33.5)	235 (43.2)	53 (9.7)	17 (3.1)	544
Sense of humor	2.630	65 (11.9)	183 (33.5)	208 (38.1)	69 (12.6)	21 (3.8)	545
Grade point average (overall)	2.660	39 (7.1)	166 (30.3)	230 (53.0)	46 (8.4)	5 (1.1)	547
Willingness to relocate	2.677	100 (18.6)	141 (26.2)	174 (32.5)	81 (15.0)	45 (8.0)	539

(Continued) When recruiting college graduates for employment in your organization, how important are each of the following factors? Answers are listed in mean score order. Absolute frequencies are listed for each answer with adjusted frequencies (%) shown in parentheses.

Selection Factors	Mean Score	Ratings of Selection Factors					Of No Importance	Row Total
		1 Of Extremely High Importance	2 Of High Importance	3 Of Medium Importance	4 Of Low Importance	5		
Knowledge of work organization	2.711	92 (7.9)	157 (29.1)	263 (48.9)	62 (12.8)	8 (1.5)	539	
Sociability	2.755	56 (10.4)	148 (27.5)	235 (43.4)	70 (13.0)	23 (5.4)	539	
Credential file	2.782	38 (7.1)	158 (29.6)	239 (44.8)	78 (14.6)	20 (3.8)	533	
Computer Science Coursework	2.800	55 (12.9)	131 (26.8)	175 (35.8)	81 (16.6)	39 (8.0)	483	
Familiarity with professional options	2.821	23 (4.4)	155 (29.5)	253 (48.1)	83 (15.9)	12 (2.3)	526	
Communication Skills	2.866	42 (8.9)	131 (27.8)	178 (37.9)	88 (18.7)	32 (6.8)	471	
Management Skills	2.888	32 (5.7)	125 (26.0)	215 (44.8)	81 (16.9)	27 (5.5)	480	
Class ranking	2.923	20 (3.7)	133 (24.3)	278 (50.8)	101 (18.5)	15 (2.7)	547	
Appropriate establishment views/lifestyles	2.948	39 (7.2)	136 (25.1)	215 (39.7)	116 (21.4)	35 (6.5)	541	
Recommendations from: former employers (summer and part-time)	3.035	40 (7.3)	130 (23.8)	199 (36.4)	127 (23.2)	51 (9.3)	547	
Experience in College activities and athletics	3.075	20 (3.7)	116 (21.2)	241 (41.1)	141 (25.8)	23 (5.1)	546	
Candidate's prior knowledge of your organizations	3.118	14 (2.5)	112 (20.3)	249 (47.1)	149 (27.0)	28 (5.1)	552	
Statistics Coursework	3.199	17 (3.5)	81 (17.3)	199 (42.6)	132 (28.3)	38 (8.1)	467	
Academic minor(s)	3.228	18 (3.3)	74 (13.7)	242 (44.8)	179 (33.1)	27 (5.0)	540	
Understanding of American economy	3.260	13 (2.4)	75 (13.9)	256 (47.5)	149 (27.6)	46 (8.5)	539	
Work experiences unrelated to candidate's career goals	3.378	5 (0.9)	30 (11.0)	250 (45.7)	187 (34.2)	45 (8.2)	547	
Student teaching	3.767	43 (8.6)	31 (5.2)	104 (20.9)	141 (28.3)	173 (35.9)	498	
Publications	3.774	7 (1.7)	33 (6.1)	149 (27.6)	227 (42.4)	120 (22.2)	540	
Ministers' References	4.153	3 (0.5)	21 (4.0)	92 (17.4)	188 (35.6)	224 (42.4)	528	
Politicians' References	4.274	4 (0.9)	17 (3.2)	65 (12.4)	185 (35.2)	255 (48.5)	525	
Marital status of candidate	4.463	4 (0.7)	18 (3.5)	55 (10.2)	103 (20.5)	352 (65.4)	533	
Race of candidate	4.493	3 (1.7)	19 (3.5)	53 (9.8)	75 (13.9)	331 (71.1)	540	
Sex of candidate	4.523	5 (1.1)	14 (2.5)	51 (9.5)	87 (16.3)	377 (70.5)	535	

**OTHER FACTORS:** Employers noted several factors which were important when selecting prospective employees. These included stability in school work, willingness to learn, ability to take directions, ability to accept criticism, leadership, patience, poise, self-confidence, tolerance, willingness to work on merit not seniority, reality sense, logic, attendance record, understanding of management, adaptability to hard physical work, and human relations skills. Some employers mentioned that certain factors were more important in particular jobs than others.

**OBSERVATIONS:** When recruiting new college graduates for employment, employers were especially interested in individuals with honesty and integrity, common sense, an ability to get things done, initiative, and reliability. Of least importance were sex, race, and marital status of candidate. The candidate's major grade point average ranked 39th on the list of 69 factors and overall grade point average ranked 45th. Work experience ranked 35th.

How important are each of the following problems when recruiting new college graduates for employment in your organization? Answers are listed in mean score order. Absolute frequencies are listed for each answer with adjusted frequencies (%) shown in parentheses.

Recruiting Difficulties	Mean Score	Ratings of Recruiting Difficulties					Row Total
		1 Of Extremely High Importance	2 Of High Importance	3 Of Medium Importance	4 Of Low Importance	5 Of No Importance	
Finding qualified recruits	1.943	187 (34.5)	242 (44.6)	80 (14.8)	23 (4.2)	10 (1.8)	542
Finding qualified minorities	1.953	223 (41.5)	195 (34.5)	78 (14.5)	33 (6.1)	19 (3.4)	537
Competition for outstanding new college graduates	2.157	135 (25.5)	225 (42.1)	135 (25.5)	27 (5.1)	10 (1.9)	534
Finding recruits with acceptable interpersonal skills	2.221	91 (15.7)	280 (51.9)	151 (24.3)	32 (5.7)	5 (0.9)	539
Finding recruits whose goals match the organization's goals	2.291	88 (15.9)	252 (45.9)	156 (29.1)	35 (6.5)	6 (1.1)	537
Finding properly prepared recruits	2.297	89 (16.7)	234 (44.0)	177 (33.3)	26 (4.7)	5 (1.1)	532
Finding qualified women	2.343	133 (25.0)	188 (35.4)	129 (24.3)	57 (10.7)	24 (4.5)	531
Finding motivated college graduates	2.505	86 (16.0)	201 (37.3)	163 (30.2)	72 (13.4)	17 (3.2)	539
Finding qualified handicappers	2.580	114 (21.5)	161 (30.3)	135 (25.4)	76 (14.3)	45 (8.5)	531
Vacancies at the time of contact	2.603	89 (16.6)	185 (34.5)	147 (27.4)	82 (15.3)	34 (6.3)	537
Finding recruits with general sense of business	2.647	42 (7.9)	198 (37.0)	218 (40.7)	61 (11.4)	16 (3.0)	535
Convincing recruits to relocate geographically	2.651	93 (17.4)	159 (29.7)	162 (30.2)	86 (16.0)	56 (10.7)	536
Student knowledge about career opportunities	2.657	46 (8.5)	183 (34.1)	232 (43.3)	59 (11.0)	16 (3.0)	536
Organization's identity	2.678	71 (13.4)	152 (30.5)	199 (35.6)	85 (16.0)	24 (4.5)	531
Finding qualified new college graduates within our starting compensation constraints	2.682	95 (17.9)	142 (26.5)	164 (30.7)	102 (19.1)	31 (5.8)	535
Opportunity for further academic work	2.739	79 (14.5)	151 (30.0)	164 (30.5)	21 (15.7)	43 (8.0)	537
Competition with larger organizations	3.042	31 (5.9)	121 (22.9)	213 (40.3)	123 (23.3)	41 (7.8)	529

**OTHER PROBLEMS:** Employers suggested that other recruiting problems prevail too. These include the difficulty of finding graduates who do not feel their degree means they know it all, attracting a full schedule of candidates when they interview on campus, and finding recruits with enthusiasm for their industry.

**OBSERVATIONS:** According to the surveyed organizations, the most important problem when recruiting new college graduates for employment was finding qualified recruits. Next in importance was the difficulty of finding minorities and of being competitive in attracting outstanding new college graduates. The least serious problems were convincing candidates to relocate geographically, meeting compensation expectations of qualified new college graduates, competing with larger organizations and providing the opportunity for further academic study near an organization's location.

If individuals, of their own free will, use a detachable photograph on their resumes, would it enhance their chances for employment in your organization? Absolute frequencies are shown for each answer.

Answers	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
YES	1	44	7.8	9.6	9.5
NO	2	372	65.2	81.6	91.2
UNDER SOME CONDITION	3	40	7.1	8.8	100.0
NO ANSWER	0	106	18.9	MISSING	
	TOTAL	552	100.0	100.0	
MEAN		1.991			
VALID CASES	456		MISSING CASES 106		

**OBSERVATIONS:** Employers generally reported that individuals, should not volunteer to use detachable photographs on their resumes. In fact, the response was 81.6% "no", 8.8% "under some conditions," and only 9.6% "yes" regarding the recommendation of photographs. However, employers' comments suggested a stronger support for them. Some employers mentioned that photographs helped them remember candidates better (8), identify minorities and women easier (8), and notice distinguishing resumes. Thus making applicants easier to remember by face than by resumes, showing neatness, exhibiting a good appearance, helping attractive individuals, and being especially helpful in occupations dealing with people where role models and appearance are important.

On the contrary photographs were reported discarded or returned by some employers when they received them, and in some cases were considered detrimental by others. Because of EEO regulations disallowing photographs, one employer expressed fear of them.

When college graduates are considering several job offers, how important (in your opinion) are the following factors in selecting one organization over another? Answers are listed in mean score order. Absolute frequencies are listed for each answer with adjusted frequencies (%) shown in parentheses.

Job Selection Factors	Mean Score	Ratings of Job Selection Factors					Row Total
		1 Of Extremely High Importance	2 Of High Importance	3 Of Medium Importance	4 Of Low Importance	5 Of No Importance	
Nature of job	1.603	255 (48.2)	245 (44.4)	36 (6.5)	4 (.7)	1 (.2)	552
Promotion potential	1.730	220 (40.1)	267 (48.6)	53 (9.7)	8 (1.5)	2 (.2)	549
Personality of employing organization	1.876	154 (28.1)	318 (58.0)	58 (12.4)	6 (1.1)	2 (.4)	548
Visit organization	1.942	168 (30.7)	266 (48.5)	94 (17.2)	18 (3.3)	2 (.4)	548
Organization's image	2.044	121 (22.1)	293 (53.5)	124 (22.6)	9 (1.6)	1 (.2)	548
Quality of interviewer	2.136	104 (19.1)	292 (53.6)	123 (22.6)	23 (4.2)	3 (.5)	545
Starting salary	2.241	94 (17.3)	244 (44.9)	187 (34.4)	19 (3.5)	0 (0.0)	544
Geographical location	2.250	125 (22.9)	202 (36.7)	183 (33.2)	39 (7.1)	1 (.2)	551
Organization's goals/objectives	2.275	109 (19.8)	227 (41.3)	173 (31.5)	35 (6.5)	5 (.9)	550
Organization's training program	2.328	91 (16.5)	235 (42.9)	190 (32.8)	35 (5.4)	7 (1.3)	548
Employee benefits	2.619	57 (10.4)	174 (31.7)	242 (44.1)	73 (13.3)	3 (.5)	549
Geographical mobility	2.546	53 (9.7)	175 (32.1)	238 (43.3)	70 (12.8)	9 (1.7)	545
Opportunity for further academic work	2.684	31 (5.6)	199 (36.1)	240 (43.6)	75 (13.6)	5 (1.1)	551

**OTHER FACTORS:** According to the employers surveyed, college graduates should also be concerned about the individuals with whom they will be working and the personal chemistry between themselves and the employing organization.

**OBSERVATIONS:** When college graduates are considering several job offers, surveyed employers rated the nature of the job, promotion potential, personality of the employing organization, and the visit to the organization to be the most important factors for candidates to evaluate. Least important were the opportunity for further academic work, geographical mobility, and employee benefits. Surprisingly, starting salaries were seventh on the list of 13 factors.

How important are each of the following sources for recruiting new college graduates? Absolute frequencies are listed for each answer with adjusted frequencies (%) shown in parentheses. Absolute

Ratings of Sources for New College Graduates

Sources	Mean Score	Ratings of Sources for New College Graduates					Row Total
		Of Extremely High Importance	Of High Importance	Of Medium Importance	Of Low Importance	Of No Importance	
Competency of college placement services	1.885	187 (34.1)	236 (46.5)	91 (15.6)	12 (2.2)	3 (.5)	549
Direct referrals from college staff/faculty	2.209	115 (21.1)	242 (44.0)	153 (27.8)	39 (7.1)	0 (0.0)	550
Referrals from current employees of your organization	2.270	104 (18.9)	230 (41.9)	190 (32.8)	33 (6.0)	2 (.4)	543
Cooperative education programs	2.512	112 (20.5)	174 (31.9)	159 (29.1)	73 (13.4)	23 (5.3)	547
Internship programs	2.552	94 (17.3)	205 (38.0)	133 (24.5)	67 (12.4)	42 (7.7)	542
Summer Employment	2.601	87 (15.9)	187 (34.2)	151 (29.5)	79 (14.5)	32 (5.9)	545
Write-ins	2.816	42 (7.7)	142 (25.9)	250 (45.5)	105 (19.1)	19 (1.8)	549
Part-time employment	2.883	52 (9.5)	152 (28.2)	197 (34.7)	103 (19.1)	45 (8.3)	539
Responses from want ads	2.891	53 (9.8)	153 (28.3)	158 (34.8)	92 (17.0)	54 (10.0)	540
Walk-ins	3.097	23 (4.2)	96 (17.6)	255 (46.9)	147 (27.0)	24 (4.4)	545
Career Fairs	3.162	28 (5.2)	118 (21.7)	192 (35.4)	148 (27.5)	57 (10.5)	545
Professional journals	3.369	17 (3.5)	93 (17.4)	173 (32.4)	170 (31.8)	79 (14.8)	534
Job listings with employment agencies	3.805	11 (2.5)	55 (10.3)	102 (18.7)	224 (41.0)	150 (27.5)	546
Unsolicited referrals from employment agencies	4.138	4 (.7)	17 (3.1)	87 (16.9)	229 (42.0)	208 (38.2)	545

**OBSERVATIONS:** The best reported source for recruiting new college graduates was competent college placement services. This was followed closely by direct referrals from college staff/faculty and from current employees of the organization. Also mentioned in order of importance were cooperative education programs, internships, summer employment experiences, write-ins, and part-time employment. Least important for recruiting new college graduates were referrals from employment agencies.

To what extent are the following factors cited as primary reasons for college graduates leaving your organization within the first two years? Answers are listed in mean score order. Absolute frequencies are listed for each answer with adjusted frequencies (%) shown in parentheses.

Reasons for Leaving	Mean Score	Ratings of Reasons for Leaving Organizations					Row Total
		Always 1	Almost Always 2	Usually 3	Sometimes 4	Seldom 5	
Better job offer	2.363	113 (21.5)	187 (35.6)	155 (31.4)	44 (8.4)	17 (3.2)	529
Not able to adapt	3.332	9 (1.7)	59 (13.2)	232 (44.3)	157 (31.9)	47 (9.0)	524
Job transfer of spouse/partner	3.353	8 (1.5)	52 (10.9)	211 (50.1)	148 (28.4)	52 (10.0)	521
Employee does not meet standards	3.356	10 (1.9)	53 (10.2)	241 (43.7)	177 (33.9)	41 (7.9)	522
Employee not motivated	3.517	4 (.8)	32 (5.5)	236 (45.4)	171 (33.6)	55 (13.0)	509
Marriage	3.563	4 (.8)	33 (6.4)	252 (44.7)	167 (32.2)	83 (16.0)	519
Pregnancy	3.675	4 (.8)	28 (5.4)	174 (37.3)	201 (38.7)	93 (17.7)	520
Desired transfer within organization not likely	3.720	1 (.2)	18 (5.5)	195 (37.8)	213 (41.1)	90 (17.4)	518
Terminated/fired	3.804	3 (.5)	13 (2.5)	152 (29.5)	261 (50.7)	86 (16.7)	515
Not qualified for job	3.833	2 (.4)	28 (5.4)	121 (23.3)	273 (52.5)	96 (18.5)	520
Employee misinformed on job requirements	4.071	1 (.2)	3 (.6)	103 (19.8)	263 (50.7)	149 (28.7)	519
Education not suited for job requirements	4.171	1 (.2)	4 (.8)	54 (10.4)	303 (59.1)	154 (29.6)	521

**OBSERVATIONS:** As the primary reasons for college graduates leaving their organizations within the first two years, employers cited better job offers, the candidate's inability to adapt to the employer's situation, and the job transfer of the spouse/partner. These were followed closely by the employee's inability to meet work standards, motivation, a pending marriage, and pregnancy. Less often cited were the desired transfer within an organization not being likely, the employee being terminated/fired, the employee not qualified for the job, the employee misinformed on job requirements, and the education of the employee not suiting the job requirements.

**How can employers and universities/colleges cooperate to increase the effectiveness of college recruitment?**

**SUMMARY:** Employers stressed the need for improved communication with colleges/universities, especially to better understand each other's operations. They were, however, generally pleased with the services provided by college and university placement offices. When arranging interviewing schedules, they encouraged proper screening of applicants to be sure that only the appropriate ones were placed on employer schedules. Employers recommended programs to make students more aware of real life and working conditions outside the campus. When arranging career seminars and workshops, employers suggested early notification so they could both interview and attend the program during one visit to campus. Employers also recommended the availability of prescreening lists, encouraged better contact between college/university faculty and their offices, noted their availability as guest speakers for classroom presentations and career fairs, encouraged better preparation of students for interviews and recognized the need to better assist candidates in identifying their career goals and developing resumes.

**In a few words, what advice would you give to freshmen or sophomores on choosing a career?**

**OBSERVATIONS:** Regarding career advice for freshmen and sophomores, the predominant recommendation of employers focused on the need for better career decision-making. They recognized the crucial need to better assist students in determining their interests, likes and dislikes, abilities, aptitudes, employment possibilities, and specific career objectives. They suggested that students investigate occupations in several career fields by interviewing currently employed professionals and consulting placement counselors regarding job specifications and job market conditions for their areas of interest.

Following this self-analysis and career information research process, employers recommended that students acquire summer/part-time work experiences to "test" their career goals. Employers also stressed that students consider pursuing a strong technical undergraduate background because the demand for these technical academic majors in the market place is so high. Employers emphasized the importance of students working harder than others to become better qualified than most candidates in their career field. In addition, they repeatedly mentioned that undergraduates contact their placement offices early and extensively use them rather than employment agencies.

In a few words, what advice would you give to juniors or seniors on job search strategies?

**COMMENTS:** For advice to juniors and seniors on successful job search strategies, employers suggested that these individuals obtain summer or part-time employment in their chosen fields. Researching career opportunities and interviewing with several organizations was recommended. As much as possible, individuals should know the organizations they are interviewing. Further, they should interview as early in their senior year as possible and have specific career goals determined. Using Placement Services, reading the COLLEGE PLACEMENT MANUAL, making campus interviews, and writing letters of application to nonvisiting companies were also recommended as excellent job hunting efforts. Also, individuals should give any time and effort needed as well as hard work to their job hunting. In the end, they will be properly rewarded. Also recommended were individual interviews with selected employers who visit their campuses. Students should decide their career goals before interviewing, study the employers who are visiting their campuses, and interview with those that match their career goals. Candidates should be honest and straight-forward. It is hoped that students will soon bury the "me" generation of mediocrity. Making as many direct employer contacts as possible was also suggested. Appropriately preparing for interviews, dressing neatly, and looking sharp were also encouraged.

A positive mental attitude was another desired factor. To be successful, individuals should be personable, keep their options open, be confident, a hard worker, be able to sell their assets, and possess an academic degree with several options. A double major would be preferred. Know themselves. Know the system. Be patient. Be selective. Being sincere and do not use company interviews for practice.

Using placement offices was especially recommended. Students should keep in close contact with placement advisors, follow all leads, review company literature and brochures, and attend career fairs.

Work experience in your chosen field of study and campus interviews with several organizations, if possible were desirable. By starting career planning early and working in summer or part-time jobs, an individual should be able to decide early and specialize in a field of study that will yield good opportunities when they graduate.

Establish realistic goals and start your job search early. By knowing your strengths and weaknesses, you should be able to match job opportunities with your strongest abilities. Be as specific as possible about your skills and goals. Then interview with as broad a range of employers as possible to know as much as you can about available career alternatives.

**OBSERVATIONS:** Generally, employers advised students to start their career planning early, get as many career related work experiences as possible during their college years, and just be themselves. Common sense, honesty and hard work are characteristics they seek in the selection of prospective employees. These responses corresponded closely with the most important recruiting factors mentioned earlier in this report.

## EMPLOYERS RESPONDING TO SURVEY

- A -

A Daniels Midland Company  
 Abraham & Straus  
 Aetna Casualty & Surety  
 AIR Products & Chemicals Incorporated  
 Albany International Corporation  
 Albion Malleable Division  
 Algonac Community Schools  
 Allegan General Hospital  
 Allis Chalmers Corporation  
 Alpena Public Schools  
 Aluminum Company Of America  
 American Fletcher National Bank  
 American Agricultural Products  
 American Copper & Nickel  
 American Cyanamid Company  
 American Electric Power  
 American Express Company  
 American Hospital Supply Corporation  
 Amoco International Oil Company  
 Ampex Corporation  
 Amway Corporation  
 Anchor Hocking Corporation  
 Anderson Nietzke & Company  
 Anheuser Busch Incorporated  
 Ann Arbor Public Schools  
 Application Engineering Corporation  
 Applied Physics Laboratory  
 Armco Incorporated  
 Armstrong Machines  
 Arthur Andersen & Company  
 Arthur Young & Company  
 Arvin Industries  
 Atlantic Richfield  
 Autonetics  
 Avco International Service Division

- B -

B Altman & Company  
 B F Goodrich Chemical Company  
 B F Goodrich Company  
 Ball Corporation  
 Baltimore County Board of Education  
 Bamberger's New Jersey  
 Bangor Public Schools  
 Bank of Commonwealth  
 Bankers Life Company  
 Banquet Foods Corporation  
 BASF Wyandotte Corporation  
 Battle Creek Public Schools  
 Bausch & Lomb  
 Bay City Public Schools  
 Baylor College of Medicine  
 BDM Corporation  
 Becton Dickinson  
 Beech Aircraft  
 Beldon Corporation  
 Belk's Stores Service  
 Bell & Howell Company  
 Bell Laboratories  
 Bendix Corporation  
 Bendix Aerospace/Electronics  
 Benton Harbor Public Schools  
 Berrien Springs Public Schools  
 Big Rapids Public Schools

Birmingham School District  
 BJ Hughes Incorporated  
 Black & Vetch  
 Bloom Engineering Company  
 Bloomfield Hills Schools  
 Bloomingdales  
 Blue Cross/Blue Shield  
 Boeing Company  
 Boise Cascade Corporation  
 Bonne Bell  
 Booker Association Incorporated  
 Borel Restaurant Corporation  
 Borg Warner Transportation Equipment  
 Boston Edison  
 Bridgeport-Spalding Schools  
 Broad Corporation  
 Brockway Glass  
 Brown Derby Incorporated  
 Buffums  
 Bultema Dock & Dredge/Bultema Marine Transportation  
 Bunker Ramo Corporation  
 Burlington Northern  
 Burroughs Corporation  
 Byron Jackson Pump

- C -

Cahill-Stone Incorporated  
 CAI  
 Cain-Sloan Company  
 Calgon Corporation  
 California Institute of Technology  
 Camp Fire  
 Cargill Incorporated  
 Carolina Power & Light  
 Carpenter Technology  
 Carson Pirie Scott  
 Caterpillar Tractor  
 Cenex  
 Central Illinois Public Service Company  
 Central Soya Company Incorporated  
 Central Trust Company NA  
 Cessna Aircraft  
 Champion International Corporation  
 Charles Stark Draper  
 Checkers Simon & Rosne  
 Chemical Abstracts  
 Chesaning Union Schools  
 Chevron USA Incorporated  
 Chicago Board of Trade  
 Chrysler Corporation  
 Chubb & Sons Incorporated  
 Chubb Group of Insurance Companies  
 Cincinnati Bell Incorporated  
 Cincinnati Gas & Electric  
 City of Los Angeles  
 City of Milwaukee  
 Clark County School District  
 Clark Division Dresser Incorporated  
 Clarence David & Sons  
 Cleveland Electric Illumination  
 Cleveland Pneumatic  
 Clorox Company  
 Coastal States Gas

Coldwater Community School  
 Colt Industrial-Stcl Division  
 Commonwealth Association  
 Comtec Incorporated  
 Connecticut General Life  
 Consolidated Aluminum  
 Consolidated Edison  
 Consolidated Natural Gas  
 Consolidated Rail Company  
 Continental Restaurant Systems  
 Coors Industries  
 Cordis Dow Corporation  
 Cordis Corporation  
 Core Laboratories  
 County Seat Stores  
 Cray Research Incorporated  
 Croswell-Lexington Public Schools  
 Crowe Chizek & Company

- D -

Dames & Moore  
 Danners Incorporated  
 Datapoint Corporation  
 Dataproducts Corporation  
 Davey Tree Expert Company  
 Davison Community Schools  
 Days Inn of America  
 Deere & Company  
 Deckalb Agrisearch  
 Deloitte Haskins & Sells  
 Detroit Boy Scouts  
 Detroit Edison Company  
 Detroit Police Department  
 Detroit Public Schools  
 Dexter Midland  
 Donnelley-Mirrors  
 Dow Chemical USA  
 Dow Corning Corporation  
 Dresser Industries

- E -

E E & G  
 Easter Seal Society  
 Eastman Kodak Company  
 Eaton Corporation  
 Eau Claire Public Schools  
 Embasco Services Incorporated  
 Eby Martin K Construction  
 Eli Lilly & Company  
 Elkhart Community School District  
 Ellerbe Incorporated  
 Employers Mutual Companies  
 Energy Cooperative  
 Ernst & Whinney  
 Excell Industries Incorporated

- F -

F & R Lazarus & Company  
 Fairchild Republic  
 Fairfax County Public Schools  
 Farm Bureau Insurance  
 Farm Credit Administration  
 Federal Highway Administration  
 Federal International Credit  
 Federal Mogul Corporation  
 Fema Corporation  
 Ferguson Ferguson H K Company  
 Fidelity Union Life  
 Fieldcrest Mills  
 First American Bank Corporation  
 First Federal Savings of Detroit  
 First Financial Group  
 First National Bank of St Louis  
 Fischer & Porter Company  
 Flintkote Company  
 Florida Steel Corporation  
 Fluor Engineering & Construction Company  
 Flushing Community Schools  
 FMC Corporation Chemical Group  
 Foote Cone & Belding  
 Ford Aerospace & Com  
 Ford Motor Company  
 Formation Incorporated  
 Foster Forbes Glass  
 Fowlerville Community Schools  
 Fox & Company  
 Foxboro  
 Fremont Public Schools  
 Furnas Electric Company

- G -

Gardner-Denver Company  
 General Motors Corporation  
 General Telephone Company Illinois  
 General Telephone Company Wisconsin  
 General Automation  
 General Atomic Company  
 General Electric Company  
 Georgia-Pacific Corporation  
 Gerber Products Company  
 Gittels Associates  
 Gilbert Robinson Company  
 Goulds Pumps Incorporated  
 Grand Ledge Public Schools  
 Greyhound Corporation  
 The Ground Round  
 GTE Sylvania Incorporated  
 Guardian Industries

- H -

H C Prange Company  
 H P Hood Incorporated  
 Halliburton Services  
 Hammermill Paper Company  
 Harris Corporation Date  
 Hart Schaffner Marx  
 Hartford Steam Boiler  
 Harvard Industries  
 Hawaii Department of Education  
 Hazel Park Public Schools  
 Heinz USA

Henricis Restaurants  
 Henry Ford Hospital  
 Herman Frankel Company  
 Herman Maclean & Company  
 Herman Miller Incorporated  
 Hewlett-Packard Company  
 Hilshire Farm Company  
 Hobart Corporation  
 Holley Carburetor  
 Honeywell Incorporated  
 Hooker Chemical Company  
 Hopper Associates  
 Horton Nurseries  
 Host Enterprise Incorporated  
 Howard Needles Tammen & Bergendoff  
 HBR Singer Incorporated  
 Hughes Aircraft  
 Hughes Tool  
 Huntington National Bank  
 Hurley Medical Center  
 Hygrade Food Products  
 Hyster Company

- I -

IBM Corporation  
 Iceman Johnson Hoff  
 Illinois Central Gulf Railroad  
 Illinois Agricultural Association  
 Illinois Department of Transportation  
 Illinois Environmental Protection Agency  
 I Magnin & Company  
 Indiana Farm Bureau Cooperative  
 Indiana & Michigan Electric Company  
 Induction Process Equipment  
 Industrial National Bank  
 Inland Steel Company  
 Interior Landscape  
 International System  
 Interpoint Corporation  
 Interstate Motor Freight  
 Interstate United  
 International Mineral & Chemical  
 Iowa Department of Public Safety  
 Iowa-Illinois Gas & Electric  
 IFT Aerospace Optical Division

- J -

J Hancock Mutual Life  
 J Walter Thompson Company  
 J E Sirrine Company  
 J Rigging Incorporated  
 J W Knapp Company  
 Jacobson Stores Incorporated  
 Jefferson County Public Schools  
 (Colorado)  
 Jefferson County Public Schools  
 (Kentucky)  
 Jenison Public Schools  
 Jenos Incorporated  
 Johns-Manville Sales Corporation  
 Jordan Marsh Florida  
 Joske's of San Antonio

- K -

Kalamazoo School District  
 KCL Corporation  
 Kearsley Community Schools  
 Keeler Brass Company  
 Kendall Company  
 Kenner Products  
 Kenosha School District  
 Kerr McGee Corporation  
 Key State Bank  
 Kimberly Clark Corporation  
 KMart Enterprises  
 Kraft Research & Development  
 Kurt Salmon Association

- L -

Laingsburg Community Schools  
 Lake Odessa Public Schools  
 Lansing Board of Water & Light  
 Laventhal & Horwath  
 Lawrence Liver Laboratory  
 Lear Siegler Incorporated  
 Lettuce Entertain You  
 Lincoln Electric Company  
 Lincoln Public Schools  
 Little Caesar Enterprises  
 Litton Industries Products  
 Lockheed Missiles  
 Lord & Taylor  
 Lyle Hepfer & Company PC

- M -

Majors Corporation  
 Management Information  
 Manchester Union 37  
 Manufacturers Hanover  
 Manufacturers National Bank Detroit  
 Marblehead Lime Company  
 Mariannes  
 Marsteller Incorporated  
 Martin Marietta Corporation  
 Mason City Community Schools  
 May D & F  
 McCafferty And Hogan  
 McDonnell Douglas  
 McDonnell Douglas Astronautics  
 Company  
 McGraw Edison Company  
 McGraw Edison Power  
 McLouth Steel Corporation  
 Mead Johnson & Company  
 Meijers Thrifty Acres  
 Mellon Seal & Pivoz  
 Mennonite Centennial Committee  
 Menominee Public Schools  
 Mental Health Center  
 Mercantile Trust Company  
 Merck & Company Incorporated  
 Metcalf & Eddy Incorporated  
 Metro Edison Company  
 Michael Reese Hospital  
 Michigan Bell Telephone Company  
 Michigan City Area Schools  
 Michigan Department of Highway  
 Transportation

Michigan Department of  
Natural Resources

Michigan Department of Public Health  
Michigan Hospital Association

Service Corp

Michigan National Bank

Midland Public Schools

Midland Ross Corporation

National Casting

Midtown Cafe

Millhouse & Holaly

Milwaukee Public Schools

Mitre Corporation

Minnesota Department of  
Personnel

Mobil Oil Corporation

Moore Business Forms

Moorman Feed Manufacturing  
Company

Mostek Corporation

Motorola Incorporated

Muirfield Village Golf Club

- N -

N W Ayer ABH Internation

Nathan Ett & Shewach

National Bank of Detroit

National Bank of Jackson

National City Bank

National Security Agency

National Starch & Chemical

Natural Gas Pipeline

Naval Civilian Personnel

Naval Ship Weapon System

Naval Weapons Center

Navy Recruiting Commission

NCR Corporation

NCR Corporation Engineering &  
Manufacturing

NCR Corporation Micro  
Electronics

Neiman Marcus

Nekoosa Papers Incorporated

New Orleans Public Schools

New York Cooperative Extension

Newaygo Public Schools

Newport News Shipbuilding

Northern Indiana Public Service

Northern Natural Gas

- O -

Oakland Press

Official Airlines Guide

Old Kent Bank & Trust

Olin Corporation

Omark Industries

Oscar Mayer Company

Osco Drug Incorporated

Otsego Public Schools

Owens Corning Fiberglass

Owens Illinois Incorporated

PA State Civil Service Commission

Pacesetter Bank & Trust

Par Corporation

Park District of Highland

Parker Hannifin Corporation

Paul Revere Life Insurance

Pcat Marwick Mitchel

Penn Mutual Life Insurance

Pennmax Advisory Group

Peoples Gas Light Company

Peter Kiewit Sons

Philadelphia Electric

Philadelphia Naval

Phillips Petro Company

Phoenix Mutual

Pillsbury Company

Pinecrest Christian Hospital

Pittsburgh National Bank

Planning Research Corporation

Plante and Moran

Polaroid Corporation

Port Authority of New York

& New Jersey

PPG Industries

PRC Consoer Townsend Incorporated

Procter & Gamble

Professional Service Industries

Public Service Indiana

Pullman Trailmobile

- Q -

Quality Farm & Fleet

- R -

R R Donnelley & Sons

Racial Milgo Incorporated

Radian Corporation

Radisson Hotel

Ralston Purina Company

Rand Corporation

Red Lobster Inns

Rehmann Robson Osburn & Company

Reliance Electric Company

Ren Plastic

Republic Packaging

Research Triangle Institute

Reynolds Metal Company

Rich's

Richardson Merrell

Richman Gordman Stores

Robert E McKee Incorporated

Rochester Community Schools

Rockwell International

Rosemount Incorporated

S C Johnson & Son Incorporated

Saga Corporation

Saginaw School District

Saint John Hospital

Samsonite Corporation

Santa Fe School District

Sargent & Lundy Engineering

Schippers Kinter Robertson

Scott Paper Company

Scovill Incorporated

Seaboard Seed Company

Sealed Power Company

Shaker Heights City Schools

Shell Companies

Shillitos

Simplex Time Recorder

Simpson Industries Incorporated

Social Security Administration

Softech Incorporated

Southern Bell Telephone & Telegraph

Southern Railway

South Redford Schools

Southwestern Company

Southwestern Public Service

Sperry New Holland

Stauffer Chemical

Steelcase Incorporated

Sokley Van Camp Incorporated

St Regis Paper Company

Sunbeam Corporation

Sunbeam Plastics

Sun Company Incorporated

Sunstrand Corporation

Superior Electric

Sybra Incorporated

Systems Research Incorporated

- T -

Technology Incorporated

Technomic Consultant

Tenneco Automotive

Tenneco Chemicals Incorporated

Tenneco Oil Company

Texas Electric Service Company

Texas Utilities Service

Thiokol Corporation Wasatch

Thomas J Lipton Incorporated

Timken Company

Topeka Shawnee D501

Touche Ross & Company

Town & Country Fashions

Transco Companies

Travenol Laboratories

Troy School District

Turner Construction

Tyler Refrigeration

## • U •

Uarco Incorporated  
 UGI Corporation  
 Union Oil of California  
 United Engineering & Construction  
 United Nuclear Corporation  
 Univac Data Processing Division  
 Universal Oil Products  
 University of Michigan  
 University Computing  
 Upjohn Company  
 US Action/Vista/Peace Corp  
 US Air Force  
 US Coast Guard  
 US Department of Agriculture  
 US Fire Insurance Companies  
 US Gypsum Research  
 US Internal Revenue Service  
 US Patent & Trademark  
 US Postal Rate Commission  
 US Social Security Administration

## • V •

Vermeen Manufacturing Company  
 Vought Corporation

## • W •

Walker Manufacturing Company  
 Walt Disney World  
 Warren Consolidated Schools  
 Washington National Insurance  
 Waterford Schools  
 Wausau Insurance Companies  
 Wayne State University  
 West Point-Pepperell  
 Western Company of North America  
 Western Geophysical  
 Western International Hotel  
 Western Publishing  
 Westinghouse Electric Company  
 Weyerhauser Company  
 Wickes Lumber Company  
 William H Roper Incorporated  
 Winklemans  
 Wolverine Aluminum  
 Wyandotte General Hospital  
 Wyandotte Public Schools

## • Y •

Yeo and Yeo  
 Yoplait USA  
 York Air Conditioning